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Wheat Situation

Economics, Statistics,
and Cooperatives Service

U.S. Department of
Agriculture

WS-245

August
1978

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TABLE 1.--WHEAT: MARKETING YEAR SUPPLY, DISAPPEARANCE, ACREAGE AND PRICES, 1974-78*

YEAR BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE								
					DOMESTIC USE							ENDING STOCKS MAY 31	
	BEGINNING STOCKS	PRODUCTION	IMPORTS 1/	TOTAL	FOOD 2/	SEED	FEED 3/	TOTAL	EXPORTS 1/	TOTAL DISAPPEARANCE	PRIVATELY OWNED 4/	GOVT. 5/	TOTAL
	MILLION BUSHELS												
1974/75	340	1,782	3	2,125	521	92	59	672	1,018	1,690	435	---	435
1975/76	435	2,122	2	2,559	559	99	63	721	1,173	1,894	665	---	665
1976/77	665	2,142	3	2,810	553	92	103	748	950	1,698	1,112	---	1,112
1977/78 6/	1,112	2,026	2	3,140	569	80	193	842	1,124	1,966	1,044	130	1,174
1978/79 7/	1,174	1,802 (+,-70)	2	2,978	565 (+,-10)	80 (+,-5)	100 (+,-50)	745 (+,-60)	1,100 (+150,-100)	1,845 (+,-175)	N.A.	N.A.	1,133 (+,-200)

YEAR BEGINNING JUNE 1	ACREAGE				YIELD PER HARVESTED ACRE	SEASONAL PRICES RECEIVED		GOVT. PRICE SUPPORT OPERATIONS	
	ALLOTMENT	SET-ASIDE	PLANTED	HARVESTED		PARTICIPATING FARMERS	NON-PARTICIPATING FARMERS	NATIONAL AVG. LOAN RATE	TARGET PRICE
	MILLION ACRES				BUSHELS	DOLLARS PER BUSHEL			
1974/75	55.0	---	71.0	65.4	27.3	4.09	4.09	1.37	2.05
1975/76	53.5	---	74.8	69.4	30.6	3.56	3.56	1.37	2.05
1976/77	61.6	---	80.2	71.6	30.3	2.73	2.73	2.25	2.29
1977/78 6/	62.2	---	74.6	66.2	30.6	2.31	2.31	2.25	8/ 2.90/2.47
1978/79 7/	53.2	---	66.3	56.5	31.9	2.70 - 3.25		2.35	3.40

1/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS EXPRESSED IN WHEAT EQUIVALENTS. 2/ USED FOR FOOD IN THE UNITED STATES, U.S. TERRITORIES, AND BY THE MILITARY. 3/ RESIDUAL; APPROXIMATES FEED USE. 4/ INCLUDES TOTAL LOANS. 5/ UNCOMMITED, GOVERNMENT ONLY. 6/ PRELIMINARY. 7/ PROJECTED, CHANCES ARE ABOUT 2 OUT OF 3 THAT THE OUTCOME WILL FALL WITHIN THE RANGES. 8/ UNPLANTED PORTION OF ALLOTMENT QUALIFIES FOR LOWER AMOUNT. N.A. = NOT AVAILABLE. * TOTALS MAY NOT ADD DUE TO ROUNDING.

THE WHEAT SITUATION

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World Food and Agricultural
Outlook and Situation Board
and Summary released
July 25, 1978

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SUMMARY

Prices To Average Higher in 1978/79; Possible Reduction in Carryover

Growers' acreage adjustments in response to the set-aside and graze-out programs and crop prices along with adverse weather in some areas indicate that the 1978 wheat crop will drop below the 2-billion-bushel level for the first time in 3 years. As of July 1, conditions indicated a crop of 1.8 billion bushels, 11 percent below last year's level. Based on the past 20 years, chances are 2 out of 3 that the final crop outcome will not differ by more than 70 million bushels from the July estimate.

With the reduced U.S. crop, the 1978/79 wheat supply will drop below last year's record 3.1 billion bushels, though remaining the second largest. Domestic use may drop because wheat feeding is expected to be cut back sharply. Early indications point to another export year of over a billion bushels, about matching last season's 1,124 million bushels. While disappearance may decline from last season's near record performance, it appears there could be some reduction in carryover by the end of the year.

World wheat prospects point to a large crop in 1978. Growing conditions have been generally favorable in most major producing countries. As a result, world trade is expected to ease somewhat from last year's record. World stocks at the end of 1977/78 appear headed for a small net increase.

The 1977/78 season ended with prices running around 75 cents to a dollar a bushel higher than at the start. Though carryover stocks increased for the fourth consecutive year, heavy use of the loan and reserve programs, coupled with one of the heaviest end-of-season paces of export shipments, provided strong market price support.

Farm prices are expected to average between $2.70 and $3.25 for the season, compared with the $2.31 average in 1977/78. The market this season will be supported by heavy export shipments, strong loan activity, some delays in harvest, and the reserve inventory, but deficiency payments, based on the $3.40 target price, again will probably be an important income factor to wheat growers.

OUTLOOK FOR 1978/79

Reduced Acreage Cut 1978 Wheat Crop

Growers' adjustments in their 1978 wheat plantings in response to low prices, the set-aside program, and weather, particularly in the eastern soft wheat area, have pared the 1978 wheat crop below 2 billion bushels for the first time in 3 years. As of July 1, the 1978 wheat crop was estimated at 1.8 billion bushels, down 11 percent. With the winter crop in the advanced stage of harvest, the July forecast is a good indicator of the final crop, with 2 out of 3 chances that the final outcome will not differ by more than 70 million bushels.

Wheat: U.S. planted and harvested acreage

Class	Planted		Harvested		Percent harvested	
	1977	1978[1]	1977	1978[1]	1977	1978[1]
	Million acres				*Percent*	
Winter	56.0	48.0	48.4	38.8	86.4	80.8
Durum	3.2	4.1	3.0	4.0	93.8	97.6
Other Spring	15.6	14.2	14.8	13.7	94.9	96.5
Total	74.8	66.3	66.2	56.5	88.5	85.2

[1] Preliminary.

Planted acreage of all wheat for 1978 totaled 66.3 million acres, the smallest since 1973. Acreage harvested for grain was down to 85 percent compared with 89 pecent last year, reflecting strong signup in the set-aside and graze-out programs. Farmers who enrolled in the programs planted 50.3 million acres to wheat, of which 1.4 million acres were grazed or cut for hay. Participants planned to set aside 10.1 million acres.

Indicated yields across all wheat areas averaged 31.9 bushels per harvested acre, over a bushel higher than a year ago.

Winter Wheat acreage and production are both estimated to decline, ainly due to set-aside participation by Hard Red Winter (HRW) growers and the sharp acreage reduction in major Soft Red Winter (SRW) wheat States.[1] Higher yields partially offset the drop in harvested acreage, reducing the crop to 16 percent below 1977's.

Growers increased Durum acreage about a third and reduced other spring wheat plantings by 9 percent. Signup reports indicate heavy participation in set-aside by Northern Plains hard spring growers. In addition, these producers likely shifted some acreage to Durum in response to relatively high prices. As of July 1, the Durum wheat harvest is forecast a hefty 49 percent above a year ago, while other spring wheat production will be down slightly. Both wheats are in very good condition, with yield expected to be the highest in 6 years.

[1]See additional wheat class discussions on page 7.

Carryover Stocks Contribute to Large Supply

Stocks of old crop wheat on June 1 totaled 1.2 billion bushels, slightly up from last June, and the largest since 1963. Farmers held about 42 percent of these stocks on the farm, a jump of 15 percent from a year ago. This is an indication of the recent expansion of farm storage construction, particularly in the Southern and Central Plains wheat belt. Over half of the total June stocks were in the farmer-held reserve, under loan, or in Commodity Credit Corporation (CCC) inventory (table 12). Hard wheats composed most of the reserve with hard winter half of the total.

Total wheat supplies for the 1978/79 market year will be 5 percent below last year's historic high 3.1 billion bushels. Combined hard wheat supplies are projected down about 2 percent from 1977/78, while soft wheat supplies will be 20 percent lower.

Moderate Drop in Domestic Use

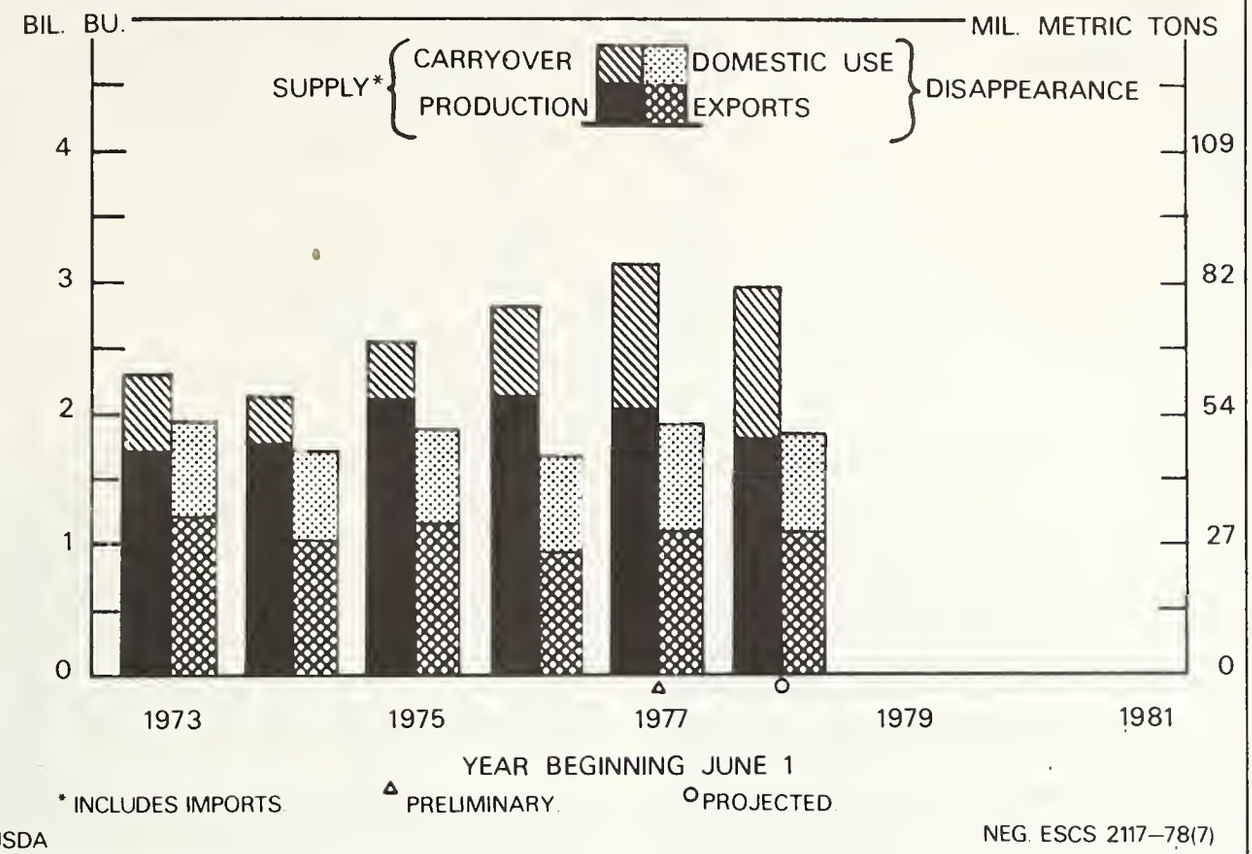
This year's food use is projected to be around 565 million bushels, down from the record 569 million bushels in 1977/78. Continued expansion in away-from-home eating, particularly sandwich, donut, and pasta food outlets, convenience foods, and several new successful wheat product lines, will contribute to strong demand, but on balance, the spectacular 3-percent upturn of food use in 1 year may be difficult to duplicate in 1978/79.

Feed use of wheat is expected to be half last year's nearly 200 million bushels. Wheat prices this summer will be well above feed grain prices in most areas. Also, the expected large feed grain harvest will cut into wheat feeding later in the season as feed grain prices hit their seasonal lows.

Another Billion-Bushel Export Year Projected

Early indications point to another good export season in 1978/79, probably in excess of a billion bushels for the sixth time in the last 7 years. To lead off the new marketing year, export sales carried over from 1977/78 were up over 50 percent from June 1, 1977. One reason is that until the new crop wheat is harvested in other exporting countries, the United States remains the major world supplier. On July 9, export commitments (exports plus outstanding sales) totaled around 400 million

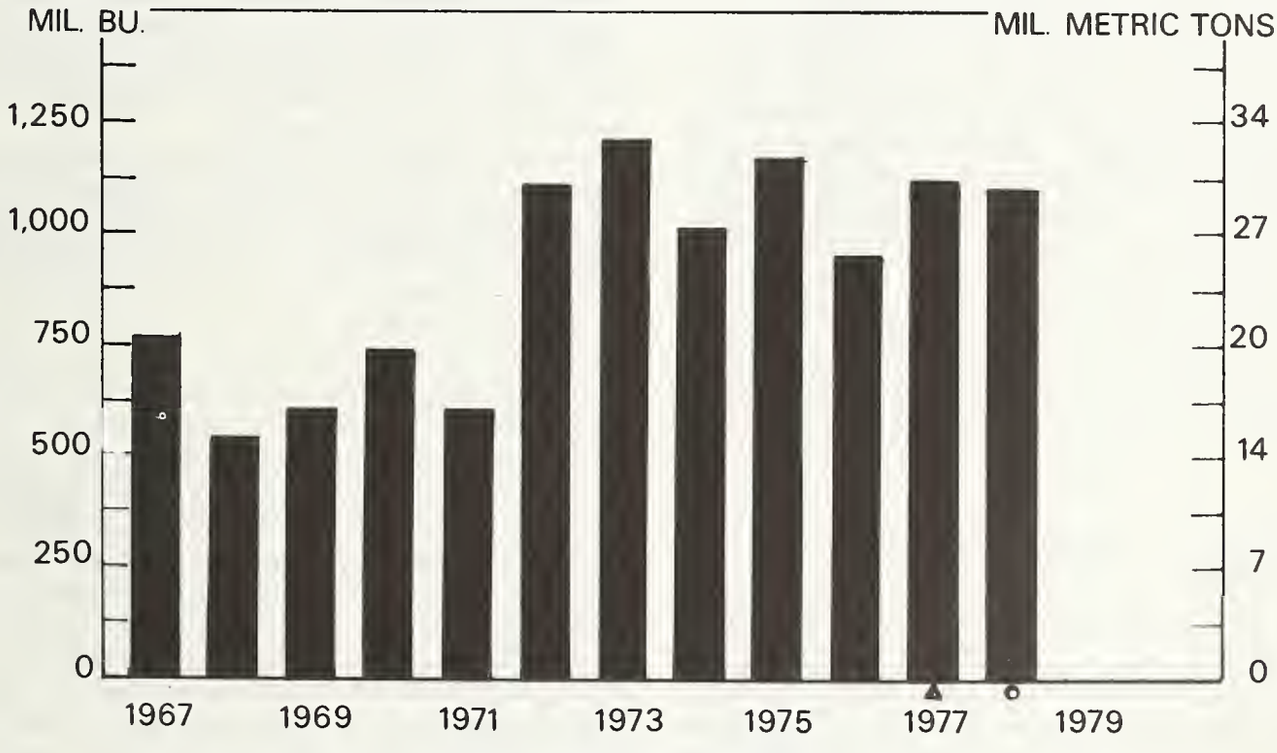
WHEAT SUPPLY AND DISAPPEARANCE



USDA

NEG. ESCS 2117–78(7)

U.S. WHEAT EXPORTS



*INCLUDES FLOUR AND OTHER PRODUCTS IN TERMS OF WHEAT. △ PRELIMINARY. ○ PROJECTED.

USDA

NEG. ESCS 232–78(7)

Wheat, corn, sorghum: Cash prices at selected markets, 1977/78

Mid-month	Texas High Plains		Denver		Chicago	
	HRW wheat	No. 2 grain sorghum	No. 1 H.W. ord. wheat	No. 2 yellow corn	No. 2 SRW wheat	No. 2 yellow corn
	Cents per pound					
June-Sept. ave.	3.37	3.30	3.13	3.62	3.65	3.54
Oct.-Dec. ave	3.95	3.53	3.60	3.70	4.17	3.68
Jan. 12	4.10	3.62	3.78	3.92	4.53	3.91
Feb. 16	4.15	3.68	3.82	3.95	4.40	3.93
Mar. 16	4.40	4.02	3.98	4.28	4.70	4.25
Apr. 13	4.63	4.30	4.20	4.59	5.12	4.46
May 11	4.37	4.22	4.15	4.55	5.13	4.61
June 15	4.48	4.25	4.10	4.62	5.17	4.43
July 13	4.62	4.15	4.25	4.40	5.37	4.09

bushels, a fifth higher than the same date last year.

World wheat trade in 1978/79 is expected to continue heavy but somewhat lower, with the U.S. share of total world demand projected to remain near last season's 43 percent. U.S. wheat exports for 1978/79 are currently projected to range around 1.1 billion bushels (29.9 million metric tons), nearly matching last season's 30.6 million metric tons. The European Community, USSR, North Africa, and Latin America, particularly Brazil and Mexico, accounted for the major share of increased 1977/78 exports. The People's Republic of China (PRC) also entered the U.S. wheat market for the first time since 1974 with a 1-million-metric-ton purchase of which nearly all will be shipped in 1978/79.

Most of the world's major wheat-producing nations, except India, had reduced crops in 1977/78, but the outlook for 1978/79 indicates a world wheat harvest approaching the record 1976/77 crop. This may lead to decreased import requirements, particularly from Western Europe, North Africa, and possibly the USSR. At this time, increased 1978/79 sales to Latin America, Asia, and Eastern Europe seem likely. U.S. exports are expected to encounter increased competition when new crop supplies become available in competing countries. Wheat flour exports declined 12 percent to 57 million bushels (grain equivalent) in 1977/78 as P.L. 480 allocations were delayed early in the year.

Prices Expected To Maintain Strength Over Last Year

Despite a large supply of old crop wheat on hand, prices held at high levels as the harvest moved into full swing in June and July. Generally, market prices were running 70 to 80 cents per bushel higher than year-earlier levels. This was caused by concern over crop prospects, a lagging harvest, extremely light farmer selling, and heavy export shipments. Further, the large stocks out-

Wheat: Prices received by farmers in selected States

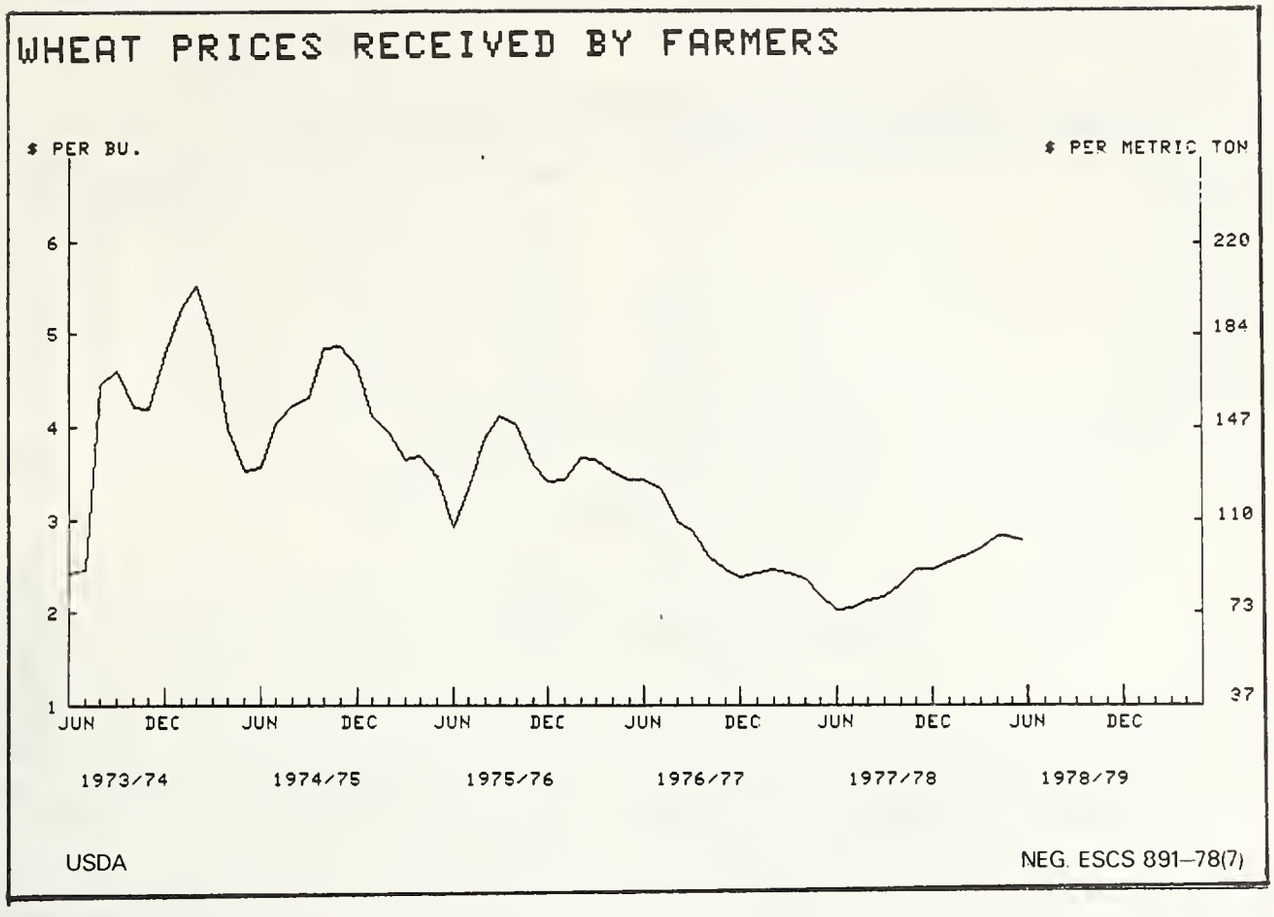
States	April		May		June	
	1977	1978	1977	1978	1977	1978[1]
	Dollars per bushel					
Texas	2.22	2.75	1.93	2.89	1.97	2.83
Oklahoma	2.23	2.87	2.05	2.87	1.99	2.78
Kansas	2.06	2.82	1.82	2.67	1.93	2.62
Illinois	2.20	2.88	2.16	2.86	1.95	2.79
Missouri	2.20	2.90	2.08	2.91	1.91	2.71
United States	2.37	2.82	2.19	2.82	2.03	2.80

[1] Preliminary.

standing under loan and farmer-held reserve inventories (over half of June 1 stocks) have been factors in pricing. Another factor has been the surge in farm bin construction in the wheat belt which will do much to relieve the traditional harvest rush and encourage orderly marketing by spreading the crop movement over a longer period.

However, as the size and crop quality becomes apparent and the large supplies dominate the market, there is likely to be downward pressure on wheat prices. Season average farm prices in 1978/79 are projected to be in the range of $2.70 to $3.25 per bushel, considerably above last year's $2.31. The market, this season, will be supported by heavy export shipments, strong loan activity, some delays in harvest, and the reserve inventory. Early season farm prices have been running up to 50 cents per bushel above the new 1978 loan rate of $2.35 per bushel, which will likely cut the use of the loan program from last season's high level.

While the recently announced increase in the 1978 loan rate from $2.25 to $2.35 per bushel may have little impact on present market prices, it does affect the mechanics of the 3-year reserve program. The release price (140 percent of loan) will go up 14 cents to $3.29 per bushel. The farmer cannot redeem his reserve grain without penalty until the average farm price reaches that level. In addition, the recall price (175 percent of loan) goes up 17



cents to $4.11 per bushel. At that average farm price, the CCC could recall all outstanding loans.

Deficiency payments based on the $3.40 target price will likely continue to be an important income factor to wheat growers.

Recent Wheat Program Developments

Major changes of the 1978 wheat program were announced on March 29. Changes since then are:

- Interest rate on wheat loans was increased from 6 to 7 percent.
- 1978 wheat loan raised 10 cents per bushel to $2.35.

Under the Food and Agriculture Act of 1977, any set-aside for the 1979 wheat crop must be announced by August 15, 1978. The determination will be based on supply and demand prospects for 1979/80.

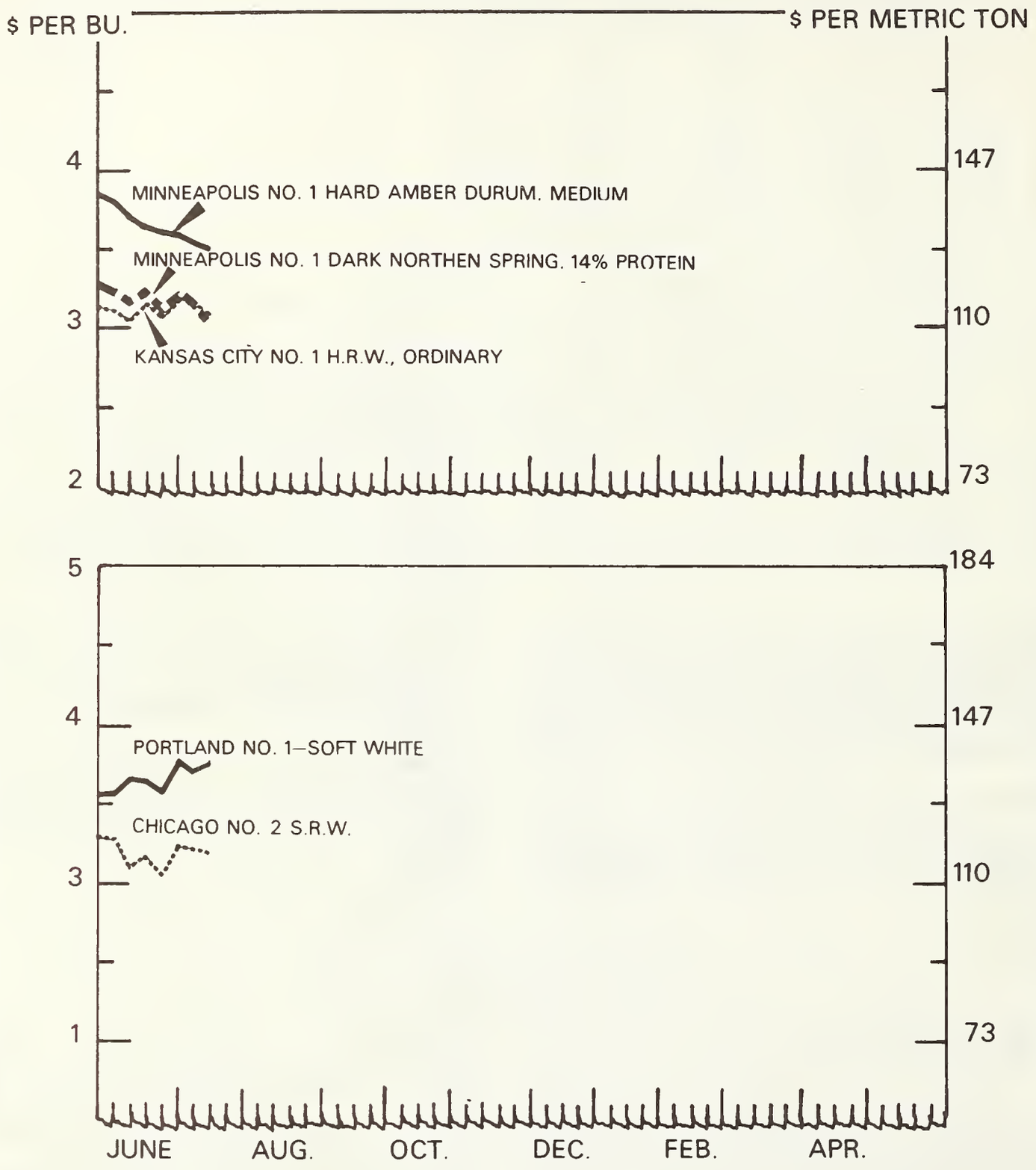
WHEAT OUTLOOK BY CLASS

1978 HRW Crop Down; Harvest Prices To Be Above 1977's

Generally, the 1978 Hard Red Winter (HRW) crop developed normally but harvest was delayed in some areas by cool wet weather. Parts of the Southern Plains had severe drought conditions that caused low yields or abandonment. As of July 1, HRW production was estimated at 873 million bushels, 12 percent below last year and the smallest crop since 1972. Yields are averaging about 1 bushel per acre above last year. Strong producer participation in the voluntary acreage set-aside and graze-out program was mainly responsible for the cutback in harvested acreage. The major portion of the 1.4 million acres diverted to graze-out or cut for hay was in HRW-producing States. Early reports indicate protein levels lower than last year's, but still above normal.

June 1 carryover of HRW was 621 million bushels, up slightly from a year ago. But the smaller 1978 crop will be more than offsetting, so the 1978/79 supply will be down 6 percent, the first decline in 4 years. Nearly 60 percent of June 1 stocks were under loan, in the grain reserve, or owned by CCC.

CASH WHEAT PRICES, 1978/79*



* THURSDAY PRICE.

USDA

NEG. ESCS 257–78(7)

HRW: Yield per harvested acre

Crop year[1]	Colorado	Kansas	Nebraska	Oklahoma	Texas	5 State average
	Bushels					
1970	28.5	33.0	38.0	26.0	24.0	30.7
1971	28.0	34.5	42.0	20.0	21.0	30.9
1972	24.0	33.5	37.0	23.0	22.0	29.7
1973	24.5	37.0	35.0	30.0	29.0	32.9
1974	25.0	27.5	34.0	21.0	16.0	25.0
1975	22.5	29.0	32.0	24.0	23.0	26.5
1976	21.5	30.0	32.0	24.0	22.0	26.8
1977	22.0	28.5	35.0	27.0	25.0	27.7
1978[2]	24.0	31.0	35.0	27.0	21.0	28.6

[1] Year beginning June. [2] Preliminary.

Domestic use in 1978/79 should be down from last year's record pace as higher prices will sharply reduce feeding. Another good export season is probable as the USSR is expected to continue to purchase mainly HRW under the Grains Agreement and there are heavy commitments already from Latin America and the People's Republic of China.

HRW prices at Kansas City strengthened to above $3 per bushel in May and continued at that level even as the 1978 harvest picked up speed. Some delays in the harvest, along with growers' heavy use of farm storage and resistance to harvest selling have tended to support prices. Another factor has been the early season export commitments of HRW which are running considerably ahead of the pace a year ago. Harvesttime prices may average more than 70 cents per bushel above last season's.

1978/79 HRS Supply Huge

The 1978 Hard Red Spring (HRS) wheat crop was estimated at 374 million bushels on July 1, down 6 percent from last year. This decline partially reflects reduced plantings from producer participation in the set-aside program and some shift to Durum. Excessive moisture delayed spring wheat seeding and put crop development somewhat behind normal, but provided moisture for good growing conditions and yield prospects.

June 1 HRS stocks were around 340 million bushels, a record carryover, and a third more than a year ago. But about 30 percent was under loan and 35 percent was in the 3-year farmer-held reserve program. Thus, despite a smaller 1978 crop, the total 1978/79 HRS supply will be up from a year ago to around 700 million bushels, more than 2 years' normal use.

Early reports of lower protein levels in this year's HRW crop, coupled with the large HRS supply, could make spring wheat a good buy relative to other classes in 1978/79 and raise domestic use moderately. Exports in 1977/78 were up a fourth from a year earlier mainly due to stronger sales to Western Europe, the Philippines, and Nigeria. With HRS attractively priced in relation to other wheats, exports in 1978/79 are projected to be somewhat higher than last year.

HRS markets in 1977/78 were dominated by large supplies, farmers' use of the loan and reserve program, set-aside participation, and 1978 planting developments. Despite a huge total supply, the large stocks presently under loan and in the 3-year reserve, and the generally higher price level of the wheat market, along with the higher loan rate, likely preclude 1978/79 HRS farm prices from reaching last year's harvest low of around the $2.25 per bushel loan level.

Durum Supply Up for 1978/79; Prices May Weaken

Durum growers planted 4.1 million acres, nearly 30 percent more than last year. Traditional Durum States increased acreage by 30 percent. California and Arizona also planted more Durum but still only about half the large acreage of 1976. Yields could be up substantially because ample soil moisture in the Northern Plains gave the 1978 crop a good start and irrigated areas in the Southwest have expanded. Thus, based on July 1 conditions, the 1978 harvest was estimated at 119 million bushels, 49 percent above last year. A crop this size, even when coupled with a carryover that is down a fourth to 67 million bushels, places the total 1978/79 Durum supply 8 percent above the 1977/78 level.

The 1977/78 mill grind dropped slightly from last year's record pace as Durum and semolina prices were at high premiums over hard wheat and farina throughout most of the year. Relatively smaller world Durum supplies available for export and increased wheat needs from short crops in North Africa and Italy pushed U.S. Durum exports in 1977/78 to 62 million bushels, 50 percent above a year ago and the highest since 1972/73. An additional 4 million bushels of export sales were carried over into the 1978/79 marketing year. But projected sizable increases in Canadian, Italian, and North African Durum crops points to a smaller world and U.S. export market in 1978/79.

Strong export demand increased Durum cash prices at Minneapolis to $3.85 (No. 1 Hard Amber Durum) during April-May. This was $1 per bushel above the season low at last year's harvest. Prospects for an increased U.S. and world Durum supply and a possible moderation in demand indicate somewhat lower price levels in 1978/79, particularly in relation to hard wheats. July prices for Durum dropped about 30 cents per bushel, compared to 23 cents for HRS.

SRW Crop Down Sharply; Reduced Supply Certain

A combination of wet fall weather, low prices, the wheat set-aside program, and shifts to alternative crops cut back Soft Red Winter (SRW) acreage by as much as a half in major producing States. In addition, winter damage and excessive spring precipitation have reduced yield prospects and increased abandonment. As of July 1, the 1978 SRW harvest was estimated at around 200 million bushels, down 40 percent, and the smallest crop since 1973. June 1 carryover was down slightly also, so total 1978/79 SRW supply will be cut over 140 million bushels.

SRW price levels relative to other wheat classes will have a bearing on 1978/79 disappearance prospects. Domestic use may well be down as lower prices of other classes may prompt substitution in soft flour blends. Likewise, increased prices would discourage SRW feeding from last year's high level.

A flurry of SRW shipments during March-May resulted in total 1977/78 exports of nearly 200 million bushels, exceeding the old record (1976/77) by about 10 percent. As of July 9, export commitments for 1978/79 totaled 50 million bushels, which was about on par with a year ago, and mostly reflects carryover sales from 1977/78. Foreign SRW sales in 1978/79 are likely to be sharply down as tightening supplies pressure prices and weaken export demand.

The SRW cash market was firmly entrenched above $3.00 per bushel going into the 1978 harvest, and mid-July Chicago futures contracts remain above both Kansas City and Minneapolis. These relatively strong prices reflect the very sharp cut in the 1978 SRW crop and supply.

Larger 1978 Crop Expected; White Wheat Supply Up

Pacific Northwest (PNW) White wheat producers seeded about 4 percent fewer acres last fall but increased spring plantings sharply. Soil moisture is greatly improved from last year and the overall crop condition points to sizable yield increases. Wet fall planting weather and heavy winter kill drastically cut Michigan and New York White wheat prospects, resulting in a much smaller supply of Eastern White for 1978/79. Overall, the 1978 White wheat crop is estimated around 230 million bushels, up nearly 10 percent from 1977.

June 1 carryover of White wheat was estimated around 70 million bushels, down a fourth from 1977. But the larger crop will boost the 1978/79 supply to more than 300 million bushels for the fourth successive year.

Total disappearance for 1977/78 was slightly below last year's level, mainly due to exports, which were down 6 percent. While exports to Pakistan, Japan, Iran, and Latin America were up, this did not make up for the loss of India as a major purchaser of U.S. White wheat. Reduced supplies of Soft Red Winter in 1978/79 favors some increased White wheat exports. The limited supply of Eastern White would tend to lower feeding this marketing year. With White priced competively with SRW wheat, White wheat mill grind may increase in 1978/79.

During the final months of 1977/78, smaller supplies, export sales, producer holding, and use of the 3-year reserve program helped hold White wheat prices above $3.50 per bushel. Seasonal weakening is expected during the harvest of the large 1978 crop but prices should remain above last year's early season levels.

WRAPUP OF 1977/78

Wheat disappearance during April-May continued the brisk activity which began after the severe winter had significantly disrupted the transportation system. Exports led the surge with average monthly shipments during April-May about 30 million bushels above the average of the first 10 months of the year.

Exports for the June-May marketing year totaled 1,124 million bushels, nearly 20 percent above the previous season and the fourth largest on record. This upturn mainly reflected a record world wheat trade year and the United States being the only major exporter with ample supplies during the latter part of the 1977/78 marketing year. The Soviet Union was our largest commercial customer with Japan and Brazil following. Combined purchases of all three countries totaled nearly a third of U.S. wheat exports. Only one wheat class, White, showed a decrease in exports; whereas Hard Red Winter exports were up nearly 30 percent (table 3).

Domestic disappearance for the 1977/78 marketing year was up 13 percent, just below the all-time high of 849 million bushels in 1971/72. The main cause was the doubling of wheat used for feed as wheat was priced competitively with feed grains early in the season. In addition, domestic food use soared to new heights in 1977/78 after dropping off slightly in 1976/77 (table 1). This was due in part to low wheat prices early in the year when buyers

covered flour needs far into the new crop year. This record consumption (569 million bushels) is well above the 1970-74 yearly trend and suggests a leveling off of the long-term decline and possibly some increase in per capita use.

The wheat milling industry had another strong year, with mill grind the highest since the early 1960's, resulting from heavy flour exports and an increase in domestic food use. A portion of the surge in mill grind during the last months of the season may have been designated for June flour exports. If so, the 1978/79 food use amount would be slightly inflated.

The large 1977/78 wheat crop (over 2 billion bushels) was larger than use. Thus, the stock buildup that began in 1974/75 continued, and ending carryover was at the highest level since 1963 (table 1).

The huge supply in 1977/78 kept a damper on market prices and early season farm prices were running below $2.00 per bushel, compared to the $2.25 loan rate. Loan placements and participation in the 3-year farmer-held reserve program became heavy as prices remained low, and by June 1, 1978, about 55 percent of total wheat stocks were in either the grain reserve, under loan, or in CCC inventory. (table 12). Toward the end of 1977/78, the combination of these large stocks in the price support program, the strong foreign demand, and prospects for a smaller U.S. crop in 1978 strenghtened farm prices to nearly a dollar a bushel above the early season low. Even so, the 1977/78 farm price averaged $2.31 per bushel, down 15 percent from 1976/77.

WORLD WHEAT OUTLOOK 1978/79[2]

World Wheat Crop Expected To Exceed 1977 Harvest

The world 1978/79 wheat season appears to be moving in the direction of increased production, reduced trade, expanded consumption, and slightly higher ending stocks.

World 1978 wheat production is projected at about 406 million tons, nearly 25 million tons above the previous year but still below the record 415-million-ton crop in 1976/77. It is expected that the United States, Canada, and East Europe will harvest smaller crops this year but these decreases will be more than offset by increases in other regions, particularly the USSR, Australia, and West Europe.

The world trade volume will probably be down about 5 percent compared to last year's record 72 million metric tons. Global 1978/79 wheat use is projected at about 401 million tons, up 3 percent, and ending stocks are projected to increase 5 million tons, up 6 percent.

USSR's 1978 Wheat Prospects

Based on information as of early July, conditions for the 1978 total grain crop in the USSR indicate that a relatively good crop is in prospect. Taking account of the limited information and possibility of abnormal conditions which may influence upcoming crop harvests, chances are about 2 out of 3 that the final outturn for total grains would fall within a range of 195-230 million tons. Comparable ranges for wheat and coarse grains would be 95-110 million tons and 90-110 million tons, respectively. Barring unusual conditions during the balance of the growing and harvesting season, a total grain harvest of approximately 215 million tons is now indicated, including about 105 million tons of wheat, 100 million tons of coarse grains, and 10 million tons of miscellaneous grains, rice, and pulses.

The People's Republic of China's Harvest Expected To Exceed 1977

Wheat production in 1978 is expected to exceed last year's reduced crop but will fall short of the 1976 record crop of 45 million tons. Increased rainfall in May and June relieved drought conditions in most areas. Although grain development was affected by the dry conditions, most of the crop fared well due to supplemental irrigation during the drought periods.

Eastern Europe's 1978 Wheat Production Forecast Down

Eastern Europe's 1978 wheat harvest will likely fall somewhat below last year's 34 million tons. In Hungary, an official forecast placed wheat production at about 5.3 million tons, the same as 1977 output. In Czechoslovakia, wet conditions during autumn and spring hindered seeding wheat resulting in production expectations below the 1977 record crop.

Western Europe's 1978 Wheat Harvest To Exceed 1977's Reduced Level

Because winter planting conditions were favorable in most countries, Western Europe's 1978

[2]Based primarily on Foreign Agricultural Service, *World Grain Situation Outlook for 1978/79*, FG-12-78, July 19, 1978.

wheat crop outlook is for a recovery from last year's reduced level and may reach 53 million tons. Assuming favorable conditions prevail, the 1978 wheat production in the European Community is forecast to rise to around 42 million tons compared with last year's 38 million tons.

Canada Expands Wheat Area

Canada's total wheat area (including the relatively small winter acreage) is forecast at 10.6 million hectares, or 5.7 percent greater than last year. As of June 8, Canadian farmers intended to plant 9.0 million hectares of Red Spring Wheat, 1 percent less than a year ago. Durum wheat plantings are expected to cover 1.5 million hectares, double the area sown last year. A report by Statistic Canada on August 24 will provide the first estimate of 1978 planted area and production. With continued good weather conditions, Canadian producers should harvest an above average crop of around 19 million tons in 1978.

Australia's Drought Continues in Part

Parts of western Australia urgently need rain to alleviate serious to severe moisture deficiencies in the grain areas. However, conditions in other grain areas were improved with heavy widespread rains in June and July. So Australia's 1978 crop is projected at 12.5 million tons compared to last year's 9.4 million tons. With stocks expected to be drawn down to minimal levels, exports during 1978/79 will be even more dependent on the size of this year's crop as well as the usual dependence on world import demand.

India's 1978 Wheat Harvest A Record

India's 1978 wheat harvest is estimated at a record 31.2 million tons. Farmers reported better than expected yields from HYV (Higher Yield Varieties), particularly in Uttar Pradesh, Madhya Pradesh, Rajasthan, and eastern India. Also, fertilizer application in India reached a record 4.2 million nutrient tons during 1977/78, including nearly 1 million nutrient tons applied to wheat fields.

Turkey's 1978 Wheat Harvest Likely To Reach Record Level

Turkey started the 1978 season with unfavorable weather last fall, but spring and early summer conditions have been favorable so that the 1978 harvest is now estimated to equal or surpass last year's record of 13.5 million tons.

Turkey will again be an exporter of wheat—an estimated 2 million tons this season, most of which has already been sold for export. Three successive record level crops and a carryover stock of 5.5 million tons makes this possible.

World Wheat Trade

World 1978/79 (July-June) wheat trade is projected at 68.4 million tons compared to last year's record 71.9 million tons. U.S. exports are estimated at 29.7 million tons, 43 percent of the world total—the same as last year. The United States' principal competitors (Australia, Canada, and Argentina) are expected to export 25.4 million tons this year, or 37 percent of the world total. These countries' exports will be down an estimated 14 percent this year, compared with 4 percent for the United States. (Canada's expected exports will be down about 1 million tons, Australia, about 3 million tons, and Argentina will be up slightly.)

Among the importing countries, shipments to West Europe, USSR, and the People's Republic of China are expected to be down owing to the expected improvment in 1978 harvests. East Europe's wheat imports will be up due to an expected reduction in the 1978 wheat crop.

World 1978/79 Beginning Stocks Large

Opening 1978/79 world wheat stocks total an estimated 89 million tons, of which the United States holds 36 percent compared to 31 last season and only 19 percent in 1974/75. Among the 5 major exporting countries (Canada, Argentina, Australia, European Community, and the United States), the United States holds 60 percent of the total for the 5 countries.

Global beginning stocks this season are down 9 million tons, but world 1978/79 ending stocks are projected at 94.3 million tons, up 6 percent. The U.S. ending stocks are expected to decline but foreign stocks are projected to rise by around 5 million tons due mainly to an increase in USSR stocks.

RYE HIGHLIGHTS

The 1977/78 rye season began with stocks equal to the 1976/77 record low of 4.4 million bushels. But a larger 1977 crop (17 million bushels) increased total supplies and helped push early season prices to the loan level ($1.70 per bushel). However, disappearance rebounded from last year's

record low mainly on the strength of stepped up feeding. Thus, ending stocks reached a new low 4.0 million bushels, and July prices were running about 12 cents above last year.

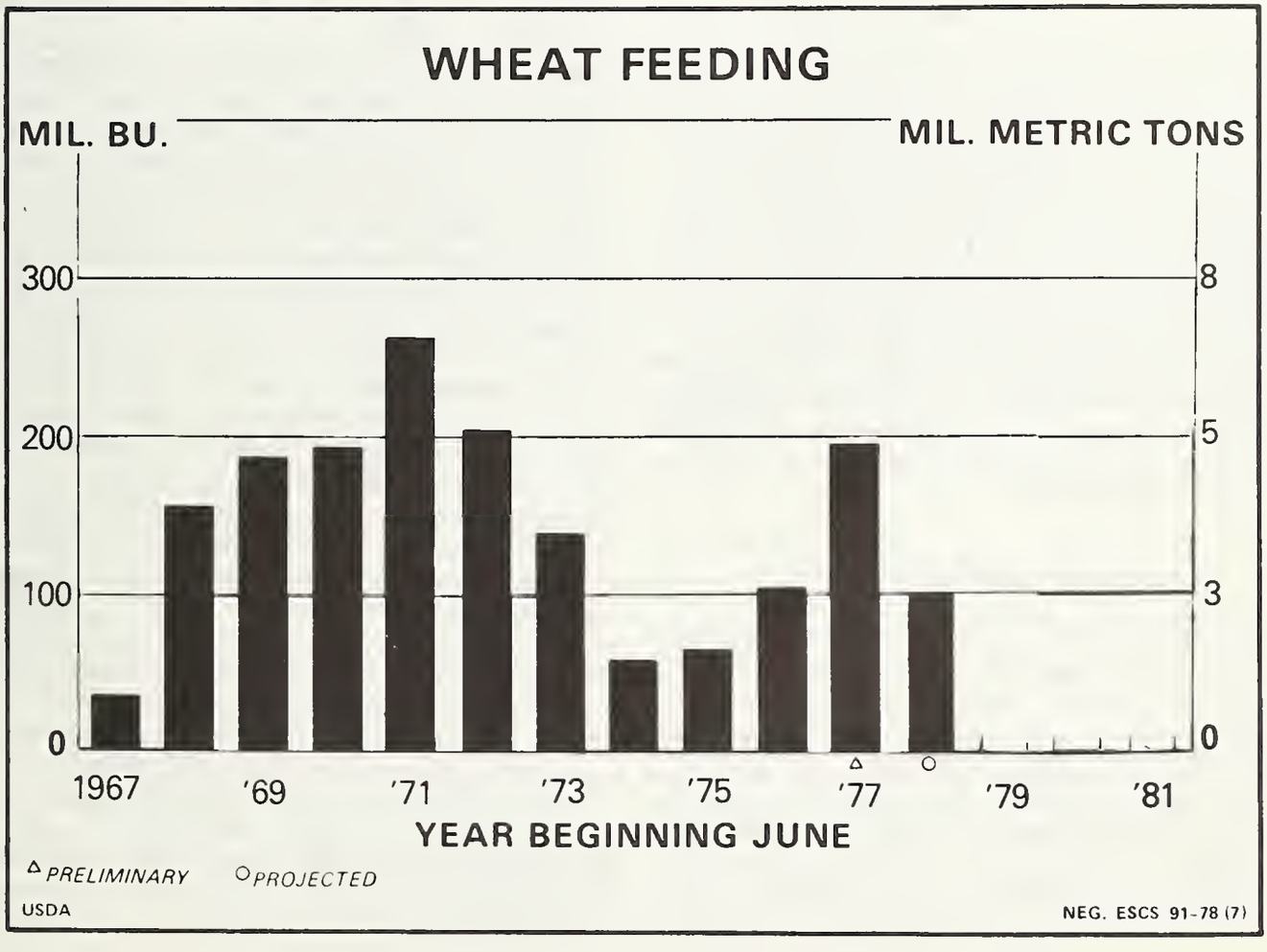
Large 1978 Rye Crop To Increase Supply

As of July 1, the 1978 rye crop in the upper Midwest was in good condition, although maturity was behind normal due to the cool spring. The new crop forecast, at 28.5 million bushels, was up about 70 percent, the largest since 1971. This big jump was due to 54 percent more acreage harvested for grain and the second successive upturn in yields. Large harvest increases are expected from four major producing States—Georgia, Minnesota, North Dakota, and South Dakota—which represent nearly two-thirds of total rye production.

This year's larger crop will more than offset the extremely low carryin and ease the tight supply situation. Thus, the price spread between Soft Red Winter and rye indicates wheat will not be as competitive in rye flour blends as in the past; thus mill grind could expand. Feed use may slightly exceed last year's 7.3 million bushels due to the larger supply.

Wheat and rye cash prices, June-May 1974-78

Year and month	No. 2 wheat SRW Chicago	No. 2 rye Minn.	Wheat/rye ratio
	Dollars per bushel		*Percent*
1974/75	4.16	2.89	144
1975/76	3.54	2.84	125
1976/77	2.81	2.87	98
1977/78			
June	2.29	2.53	91
July	2.20	1.94	113
August	2.08	1.79	116
September	2.20	2.06	107
October	2.27	2.28	99
November	2.59	2.46	105
December	2.65	2.56	104
January	2.69	2.69	100
February	2.64	2.82	94
March	2.82	2.94	96
April	3.11	3.05	102
May	3.14	3.22	98
1978/79			
June	3.18	2.93	109



FACTORS AFFECTING FAMILY EXPENDITURES FOR CEREALS AND BAKERY PRODUCTS

By Mack N. Leath and L. D. Schnake[1]

ABSTRACT: Factors affecting family expenditures for cereal and bakery products are family size, family income, and age of family members. From 91 to over 99 percent of variation in average family expenditures for cereal and bakery products are explained by these factors. These results are based on a statistical analysis of consumer expenditure data recently released by the Bureau of Labor Statistics.

KEYWORDS: Consumer expenditures, cereal products, bakery products, and wheat products.

INTRODUCTION

The Bureau of Labor Statistics (BLS) recently published the results of its latest survey of consumer expenditures (1).[2] The primary purpose of this survey was to provide a basis for revising the Consumer Price Index. The survey provides a fairly comprehensive body of information on expenditures, incomes, and selected family characteristics that can be used to analyze family expenditure patterns on a regional or national basis. This article (1) discusses some potential problems of using BLS expenditure data for analyses of consumption patterns, and (2) analyzes the factors that affect family expenditures for cereal and bakery products. This analysis will be limited to the U.S. data, but regional data are available in the BLS publication.

THE BLS SURVEY DATA

The BLS diary survey was divided into two 12-month periods, the first covering the last week in June 1972 through the third week of June 1973, and the second covering the last week in June 1973 through the third week of June 1974. The survey sample of 10,000 families in each survey year was distributed into 26 separate 2-week subsamples of equal size. The diary data were collected on a household characteristics questionnaire completed through personal interview, and on a separate questionnaire to record all daily expenses, for two consecutive 1-week periods.

The families were grouped on the basis of annual income and other characteristics. The data classified by family income before taxes were selected for use in this analysis. The family income estimates refer to the 12-month period prior to the date of interview. Consequently, the income reference periods differ by 2-week intervals with regard to each subsample. No attempt was made by BLS to adjust income or expenditures to a common period. Readers should keep this in mind when interpreting the expenditure data that were grouped on the basis of family income.

Selected characteristics of households participating in the diary survey are shown in table 1. The number of families (consumer units) in the universe of each income classification is also shown in the table. The number of households varied from 3.3 million for the $7,000 to $9,000 income class to 10.3 million for the under $3,000 class. Thus, regression analyses using average or mean expenditures for each group must take into consid-

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[2]Numbers in parentheses refer to references listed at the end of this article.

eration the variation in the size of the universe represented by each group. The effect of grouping individual observations will be discussed in the next section.

The average weekly expenditures for various cereal and bakery products for families classified by annual income in table 1 are presented in table-2. Readers should use caution in attempting to make inferences about consumption of or the demand for the products or product groups contained in table 2. The BLS study did not publish data on the mean quantities consumed. Differences in mean family expenditures for a product, or product group for different income classes *do not* mean that actual quantities consumed differ by the same magnitude. In fact, a higher mean expenditure could be associated with a lower mean consumption.

The above observations are based on two factors. First, there are many prices for a unit of a product that lends itself to product differentiation, for example, "crackers." Families with higher incomes may be purchasing more higher-priced party and snack type crackers and less lower-priced saltine crackers relative to lower income families, although the quantity consumed may be more, less, or the same. Second, product groups such as "flour and prepared flour mixes" contain closely related products of vastly different per unit values. But, on a pound-for-pound basis, prepared flour mixes cost about three times as much as family flour (2). Thus, when families in higher income brackets substitute prepared flour mixes for family flour, the higher mean expenditure does not necessarily imply a higher mean consumption.

Most expenditure categories shown in table 2 are self-explanatory. The products included in the two general categories are as follows. "Other Cereal Products and Pasta" include corn meal, corn starch, spaghetti (without sauce), noodles, rice, and other cereal products and pastas not otherwise classified. "Other Bakery Products" include cakes, cupcakes, pies, tarts, turnovers, biscuits, rolls, muffins, sweet rolls, coffee cakes, doughnuts, bread crumbs, cracker crumbs, bread stuffing, cracker meal, and other bakery products not otherwise classified. Each of the above product groups contains a variety of heterogeneous products. Consequently, analyses of expenditure patterns for the product group reveal very little about how selected factors affect expenditures for individual products.

ANALYTICAL PROCEDURES

Individual family observations were not available for use in statistical analyses; therefore, the analyses in this article will be confined to the group mean data presented in tables 1 and 2. Grouping of the original observations leads to violations of the assumption of equal variance of error terms required for correct use of ordinary least squares (OLS) regression. Consequently, OLS is not an appropriate procedure for analyzing the grouped data used in this study. Generalized least squares (GLS) regression may be used where group means are weighted using the number of families represented by each group. Readers interested in more information on the application of GLS regression using grouped data are referred to Johnston (3).

The following model was used to analyze various family characteristics to mean family expenditures for each product group:

$$Y_{ik} = a + b_1X_{i1} + b_2X_{i2} + b_3X_{i3} + b_4X_{i4} + e.$$

where i designates the family income groups used for classification in tables 1 and 2 (i=1, 2, ..., 12); Y_{ik} is the mean expenditure in dollars for product k by group i; X_{i1} is the mean family size for group i; X_{i2} is the mean family income for group i; X_{i3} is the mean age of the family head for group i; and X_{i4} is the mean number of family members over 65 years of age in group i.

ANALYTICAL RESULTS

Regression analysis using both X_3 and X_4 in the equations revealed problems of correlation in the values for these two variables. The standard errors associated with the coefficient estimates were reduced significantly when either variable X_3 or X_4 was taken out of the model. The results, using either variable, were judged to be equally good and will be presented as Model I and Model II.

Cereals and Cereal Products

Average Family Size

As expected, family size was the factor having the greatest effect on average family expenditures for cereals and cereal products. Increasing the average family size by one member had the effect of increasing weekly family expenditures about 22 cents (tabel 3). With respect to individual product groups, increasing mean family size had the greatest impact on "ready-to-eat and cooked cereal." This reflects the fact that groups with larger average family size also have a greater number of children under 18 years of age (table 1)—the age group generally associated with cereal consumption.

Average Family Income

The impact of varying average family income had a mixed effect on average family expenditures for various cereals and cereal products. In the case of ready-to-eat and cooked cereals, an increase in average family income had a small positive impact on weekly family expenditures. The impact of an income change was found to be statistically insignificant for all cereal product groups except the "flour and prepared flour mixes" group. Increasing family income had a negative and highly significant impact on weekly expenditures for these products. This finding is consistent with the results of earlier research which found that increases in income had a negative impact on flour consumption (4).

Age of Family Members

The estimated coefficients for variables X_3 and X_4, which give a general indication of the average age of families within each income classification were exactly opposite in sign to the income parameter estimates. Model I which incorporated the average age of the household head (X_3) gives parameter estimates that were statistically more significant. However, it should be noted that the signs associated with the variable measuring the average number of family members 65 and older (X_4) in Model II agree with the coefficients of X_3 in Model I in all cases. These results indicate that family units with older household heads and those with older family members tend to purchase less breakfast cereal and more of the other cereal products and flour. Higher expenditures by families with younger heads of household reflect the fact that these families usually have younger children in the family.

Bakery Products

The same two models that incorporated family size, family income, and one of two alternative age variables were used in analyzing average family expenditures for bakery products. Alternative regression equations were estimated for each category of bakery product and the results are shown in table 4.

Average Family Size

The results shown in table 4 reveal that increasing average family size by 1 member has the effect of increasing average weekly expenditures for "all bakery products" by 68 to 71 cents depending upon which statistical model is used. The impact on individual product groups varied from a low of about 4 cents for "frozen and refrigerated products" to almost 29 cents for "other bakery products" (Model I). Increasing family size by 1 would increase average weekly expenditures for bread by 27 cents and for crackers by 11 cents.

Average Family Income

With the exception of bread, higher average family income (variable X_2) for various income groups was associated with higher average family expenditures for various bakery products. The results of table 4 indicate increasing average income would reduce weekly expenditures for bread by one-third of a cent per $1,000 increase in income. The positive impacts of higher family income on expenditures for other product groups were highly significant, indicating that income is an important factor. In the case of bread, families tend to spend about the same amount per family member regardless of the level of family income.

Age of Family Members

As the average age of the household head (variable X_3) increases, average expenditures for all bakery product groups except "frozen and refrigerated products" tend to decline (Model I). Regression analyses using Model II which incorporated variable X_4 (number of family members over 65 years of age) had similar impacts on average expenditures for each product group. It should be pointed out that the parameter estimates for the variables reflecting the age of family members are not significantly different from zero from a statistical point of view.

SUMMARY AND CONCLUSIONS

Caution should be exercised in using average family expenditure data, a product of average price and average quantity, to make inferences about consumption of various products. BLS did not publish data on product prices or quantities consumed in its expenditure survey (1), so expenditures cannot be translated into quantities consumed. For example, regression analyses revealed that incremental increases in average family income of $1,000 would increase average weekly family expenditures for crackers by about two-thirds of a cent. If higher income families are purchasing higher priced crackers in comparison to lower income families, then the higher average expenditure could be associated with a lower level of product consumption. Rather, the increased income is used to purchase additional marketing services.

The size of the family was found to be the most important factor affecting average family expenditures in all cases. Incrementing average family size by one person increased average weekly

expenditures by the family unit about 70 cents for bakery products and about 23 cents for cereals and cereal products.

Variation in average family income had a mixed impact on average weekly expenditures for various products. The impact of increasing the level of income was positive and significant for all bakery products expect bread which was negative but very small. In contrast to bakery products, increasing the level of family income had the effect of reducing average expenditures for all "cereals and cereal products" groups except "ready-to-eat and cooked cereals." However, the negative impact of higher income was highly significant with respect to average expenditures for flour and prepared flour mixes. These results agree with earlier research on the relationship of income to flour consumption (4).

In the case of flour and prepared flour mixes, it appears that families with higher income are substituting higher priced flour mixes for the lower priced family flour in their purchasing patterns. A positive correlation between family income and prices of products purchased likely exists regardless of the product group considered. Consequently, the estimates associated with income are probably biased to the extent that families with higher incomes purchase higher priced products within each group.

The impacts of age of family members on average weekly expenditures were mixed. As the average age of heads of household in each of the income groups increased, average expenditures generally rose for cereals and cereal products and declined for bakery products. Alternative analyses evaluating the impact of the number of family members over 65 years of age revealed the same relationships. The estimated parameters associated with variables reflecting the age of selected family members were less significant than those associated with family size and family income for most product groups analyzed. However, the signs associated with these estimates appear to be reasonable and should provide useful insights for market analysts. Currently, the average age of the U.S. population is increasing and this should be a positive factor for industries associated with cereals and cereal products. This same trend could adversely affect bakery products in general and sweet goods (other bakery products) in particular.

FUTURE RESEARCH

The Department of Agriculture is now conducting a nationwide Household Food Consumption Survey for 1977/78. This survey will collect information on both weekly expenditures and weekly consumption of various cereal and bakery products on a larger number of products than the BLS survey. The results are planned for publication in 1979. Additional analyses of expenditures for and consumption of cereal and bakery products will be made once these new data become available.

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Table 1.--Selected characteristics of families participating in BLS survey classified by family income before taxes, 1972-74

Family income before taxes	Number of families in universe 1/	Family size (ave.)	Money income (ave.)	Age of head (ave.)	Children under 18 (ave.)	Persons 65 and older (ave.)	Education of head:				Race of head:			Housing tenure:		
							1 to 8 years	9 to 12 years	More than 12 years	Not reported or no school	White	Black	Other or not reported	Homeowner	Renter	Not reported
	Thous.	No.	Dols.	Yrs.	No.	No.	Percent				Percent			Percent		
Under $3,000	10,277	1.7	1,608	58.7	0.4	0.6	42	34	16	8	81	18	1	42	50	8
$3,000-$3,999	3,890	2.2	3,452	54.6	.7	.6	41	40	16	2/	81	17	2	45	51	4
$4,000-$4,999	3,680	2.3	4,451	52.2	.7	.5	32	48	18	2/	86	13	1	48	48	3
$5,000-$5,999	3,365	2.6	5,405	48.0	.8	.4	30	47	22	2/	86	12	1	46	51	3
$6,000-$6,999	3,574	2.7	6,414	45.4	1.0	.3	26	49	23	2/	88	11	1	48	49	3
$7,000-$7,999	3,302	2.7	7,415	44.7	.9	.2	22	53	24	1	90	9	1	53	45	2
$8,000-$9,999	6,449	3.0	8,902	42.3	1.1	.2	18	53	29	2/	88	11	1	56	43	2
$10,000-$11,999	6,524	3.2	10,810	42.3	1.2	.1	14	55	31	2/	92	7	1	66	33	1
$12,000-$14,999	7,659	3.4	13,248	42.4	1.3	.1	10	51	38	1	93	6	1	72	27	1
$15,000-$19,999	7,847	3.6	17,069	43.3	1.3	.1	8	49	43	2/	93	6	1	79	21	2/
$20,000-$24,999	3,461	3.7	21,945	45.1	1.3	.1	9	39	52	2/	94	4	2	83	17	2/
$25,000 and over	3,372	3.8	35,530	47.5	1.3	.1	4	26	71	2/	95	4	1	88	11	2/

1/ Of a total of 71,731,000 families in universe, 8,331,000 were not included because of incomplete reporting of income.

2/ Less than 0.5 percent.

Table 2.--Estimated weekly family expenditures for Cereal and Bakery Products classified by family income before taxes, 1972-74

Family income before taxes	Cereals and Cereal Products				Bakery Products:						Total Cereals and Bakery Products 1/
	Ready to eat and cooked cereal	Other cereal products and pasta	Flour and prepared flour mixes	Total cereal 1/	Bread	Crackers	Other Bakery Products	Subtotal 1/	Frozen and refrigerated	Total Bakery 1/	
	- - - - Dollars per week - - - -										
Under $3,000	0.17	0.16	0.18	0.50	0.51	0.18	0.32	1.02	0.07	1.08	1.59
$3,000-$3,999	.26	.21	.22	.69	.73	.27	.48	1.48	.08	1.57	2.25
$4,000-$4,999	.25	.19	.21	.64	.73	.29	.45	1.47	.10	1.57	2.21
$5,000-$5,999	.27	.21	.26	.73	.72	.31	.58	1.62	.09	1.71	2.44
$6,000-$6,999	.29	.22	.26	.77	.83	.34	.59	1.77	.13	1.90	2.68
$7,000-$7,999	.28	.22	.23	.73	.92	.33	.68	1.93	.12	2.00	2.77
$8,000-$9,999	.30	.20	.23	.73	.85	.38	.75	1.98	.12	2.11	2.84
$10,000-$11,999	.36	.24	.26	.86	.94	.43	.89	2.26	.14	2.40	3.26
$12,000-$14,999	.39	.22	.26	.87	.93	.46	.99	2.38	.17	2.55	3.42
$15,000-$19,999	.39	.22	.26	.87	1.02	.52	1.12	2.66	.18	2.84	3.71
$20,000-$24,999	.45	.27	.27	1.00	1.03	.56	1.23	2.82	.20	3.02	4.01
$25,000 and over	.44	.25	.24	.93	1.03	.66	1.32	3.01	.22	3.23	4.16

1/ Expenditure data for each category may not add to totals due to independent rounding.

Table 3.--Regression analyses for cereals and cereal products by product group with group mean family expenditures as the dependent variable.

Product Group	Model	Equation Intercept	Estimated coefficient for independent variable 1/				R^2 2/	S.E. 3/
			X_1	X_2	X_3	X_4		
Ready-to-eat and cooked cereal	I	+0.0282	+0.1045 (9.80)	+0.0015 (1.33)	-0.0003 (0.53)		0.97	0.04
	II	+0.0284	+0.1014 (10.57)	+0.0015 (1.31)		-0.0160 (0.45)	0.97	0.04
Other cereal products and pasta	I	+0.1271	+0.0452 (6.38)	-0.0006 (0.82)	+0.0007 (2.08)		0.93	0.03
	II	+0.1278	+0.0533 (7.76)	-0.0007 (0.84)		+0.0410 (1.59)	0.91	0.03
Flour and prepared flour mixes	I	+0.0825	+0.0701 (11.41)	-0.0029 (4.46)	+0.0006 (2.14)		0.97	0.03
	II	+0.0762	+0.0775 (13.75)	-0.0028 (4.22)		+0.0421 (1.99)	0.96	0.03
All cereals and cereal products	I	+0.2450	+0.2227 (10.94)	-0.0019 (0.91)	+0.0008 (0.80)		0.97	0.08
	II	+0.2432	+0.2317 (12.58)	-0.0020 (0.90)		+0.0471 (0.68)	0.97	0.08

1/ The t-value for each coefficient is shown in parenthesis below the coefficient estimate. The independent variables are: X_1 = average family size (number); X_2 = average family income (thousand dollars); X_3 = average age of family head (years); and X_4 = average number of family members over 65 years of age.

2/ The coefficient of determination indicates the proportion of total variation in mean family expenditures that was explained by regression on the independent variables.

3/ The standard error of estimate (S.E.) indicates the range about the regression plane that will include about 68 percent of the actual observations. A range of two standard errors will include about 95 percent of the observed values.

Table 4.--Regression analyses for bakery products by product group with group mean family expenditures as the dependent variable.

Product Group	Model	Equation Intercept	Estimated coefficient for independent variable 1/ X 1	X 2	X 3	X 4	R^2 2/	S.E. 3/
Bread	I	+0.2734	+0.2710 (11.50)	-0.0035 (1.40)	-0.0005 (0.40)		0.97	0.10
	II	+0.3030	+0.2650 (12.76)	-0.0038 (1.53)		-0.0504 (0.65)	0.97	0.09
Crackers	I	+0.0089	+0.1133 (21.16)	+0.0069 (12.35)	-0.0004 (1.47)		0.99	0.02
	II	+0.0054	+0.1091 (21.45)	+0.0070 (11.53)		-0.0194 (1.02)	0.99	0.02
Other bakery products	I	-0.2967	+0.2873 (12.26)	+0.0146 (5.94)	-0.0017 (1.50)		0.99	0.10
	II	-0.2705	+0.2673 (12.81)	+0.0144 (5.77)		-0.1204 (1.54)	0.99	0.10
Frozen and refrig-erated products	I	-0.0273	+0.0396 (6.42)	+0.0024 (3.78)	+0.0001 (0.32)		0.97	0.03
	II	-0.0233	+0.0406 (7.31)	+0.0024 (3.59)		+0.0023 (0.11)	0.97	0.03
All bakery products	I	-0.0285	+0.7123 (17.93)	+0.0202 (4.86)	-0.0026 (1.35)		0.99	0.16
	II	+0.0215	+0.6823 (19.49)	+0.0198 (4.73)		-0.1872 (1.43)	0.99	0.16

1/ See footnotes for table 3.
2/ See footnotes for table 3.
3/ See footnotes for table 3.

TABLE 2.--WHEAT: MARKETING YEAR SUPPLY AND DISAPPEARANCE, SPECIFIED PERIODS, 1973-78*

YEAR AND PERIODS BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS		
					DOMESTIC USE					EXPORTS 1/	TOTAL DISAPPEARANCE	GOVT. OWNED 4/	PRIVATELY OWNED 5/	TOTAL
	BEGINNING STOCKS	PRODUCTION	IMPORTS 1/	TOTAL	FOOD 2/	ALC. BEVERAGES	SEED	FEED 3/	TOTAL					
	MILLION BUSHELS													
1973/74														
JUNE-SEPT.	597.1	1,710.8	0.5	2,308.4	175.5	6/	31.1	124.4	331.0	525.8	856.8	5.1	1,446.5	1,451.6
OCT.-DEC.	1,451.6	---	0.3	1,451.9	140.2	6/	28.9	13.9	183.1	340.5	523.6	4.9	923.4	928.3
JAN.-MAR.	928.3	---	0.3	928.7	135.1	6/	0.6	13.1	148.8	231.7	380.5	3.0	545.1	548.1
APR.-MAY	548.1	---	1.5	549.6	79.4	6/	23.5	-12.4	90.6	119.0	209.6	0.6	339.5	340.1
MKT. YEAR	7/597.1	1,710.8	2.6	2,310.5	530.3	6/	84.1	139.1	753.5	1,217.0	1,970.5	0.6	339.5	340.1
1974/75														
JUNE-SEPT.	340.1	1,781.9	2.2	2,124.1	171.3	6/	34.0	26.3	231.6	330.4	562.0	---	1,562.1	1,562.1
OCT.-DEC.	1,562.1	---	0.6	1,562.7	138.1	6/	32.0	2.1	172.2	283.0	455.2	---	1,107.5	1,107.5
JAN.-MAR.	1,107.5	---	0.4	1,107.9	123.3	6/	0.6	66.5	190.5	255.3	445.8	---	662.1	662.1
APR.-MAY	662.1	---	0.2	662.3	88.6	6/	25.4	-36.5	77.5	149.8	227.3	---	435.0	435.0
MKT. YEAR	340.1	1,781.9	3.4	2,125.3	521.4	6/	92.0	58.5	671.8	1,018.5	1,690.3	---	435.0	435.0
1975/76														
JUNE-SEPT.	435.0	2,122.5	0.7	2,558.1	186.3	6/	33.0	25.8	245.2	428.4	673.6	---	1,884.5	1,884.5
OCT.-DEC.	1,884.5	---	0.7	1,885.3	143.4	6/	35.0	-22.3	156.1	343.6	499.6	---	1,385.7	1,385.7
JAN.-MAR.	1,385.7	---	0.3	1,386.0	140.3	6/	1.0	60.7	201.9	247.3	449.2	---	936.8	936.8
APR.-MAY	936.8	---	0.6	937.4	88.7	0.1	30.0	-0.4	118.4	153.7	272.1	---	665.3	665.3
MKT. YEAR	435.0	2,122.5	2.4	2,559.8	558.6	0.1	99.0	63.8	721.6	1,172.9	1,894.6	---	665.3	665.3
1976/77														
JUNE-SEPT.	665.3	2,142.4	0.9	2,808.5	188.5	6/	32.0	0.9	221.5	398.8	620.3	---	2,188.2	2,188.2
OCT.-DEC.	2,188.2	---	0.4	2,188.6	143.9	0.1	34.0	8.6	186.6	220.3	406.8	---	1,781.8	1,781.8
JAN.-MAR.	1,781.8	---	0.4	1,782.1	138.4	6/	1.0	74.3	213.8	178.8	392.6	---	1,389.5	1,389.5
APR.-MAY	1,389.5	---	1.1	1,390.6	82.3	6/	25.0	19.5	126.7	151.6	278.4	---	1,112.2	1,112.2
MKT. YEAR	665.3	2,142.4	2.7	2,810.3	553.1	0.1	92.0	103.3	748.6	949.5	1,698.1	---	1,112.2	1,112.2
1977/78 8/														
JUNE-SEPT.	1,112.2	2,025.8	0.8	3,138.8	181.7	6/	33.0	144.8	359.5	381.7	741.2	8.2	2,389.4	2,397.6
OCT.-DEC.	2,397.6	---	0.4	2,398.0	147.5	6/	23.0	12.1	182.6	225.4	408.0	31.8	1,958.2	1,990.0
JAN.-MAR.	1,990.0	---	0.4	1,990.4	145.5	6/	1.0	40.5	187.0	278.5	465.5	44.8	1,480.1	1,524.9
APR.-MAY	1,524.9	---	0.3	1,525.2	94.2	6/	23.0	-4.6	112.6	238.3	350.9	45.7	1,128.6	1,174.3
MKT. YEAR	1,112.2	2,025.8	1.9	3,139.9	568.9	6/	80.0	192.8	841.7	1,123.9	1,965.6	45.7	1,128.6	1,174.3

1/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS EXPRESSED IN WHEAT EQUIVALENT. 2/ USED FOR FOOD IN THE UNITED STATES. U.S. TERRITORIES, AND BY THE MILITARY. 3/ RESIDUAL: APPROXIMATES FEED USE. 4/ UNCOMMITTED, GOVERNMENT ONLY. 5/ INCLUDES TOTAL LOANS. 6/ LESS THAN 50,000 BUSHELS. 7/ EXCLUDES AN ABNORMALLY LARGE VOLUME OF GRAIN IN TRANSIT. 8/ PRELIMINARY. *TOTALS MAY NOT ADD DUE TO ROUNDING.

TABLE 3.--WHEAT CLASSES: MARKETING YEAR SUPPLY AND DISAPPEARANCE, 1975-78 1/

YEAR BEGINNING JUNE 1	SUPPLY			DISAPPEARANCE			ENDING STOCKS MAY 31
	BEGINNING STOCKS	PRODUCTION	TOTAL 2/	DOMESTIC USE	EXPORTS 3/	TOTAL	
	MILLION BUSHELS						
1975/76							
HARD WINTER	225	1,058	1,283	325	581	906	377
RED WINTER	37	326	363	141	165	306	57
HARD SPRING	104	327	432	154	160	314	118
DURUM	26	123	150	45	52	97	53
WHITE	43	288	331	56	215	271	60
ALL CLASSES	435	2,122	2,559	721	1,173	1,894	665
1976/77							
HARD WINTER	377	976	1,353	334	418	752	601
RED WINTER	57	336	393	140	181	321	72
HARD SPRING	118	411	530	154	124	278	252
DURUM	53	135	190	57	41	98	92
WHITE	60	284	344	63	186	249	95
ALL CLASSES	665	2,142	2,810	748	950	1,698	1,112
1977/78 4/							
HARD WINTER	601	993	1,594	438	535	973	621
RED WINTER	72	341	413	148	197	345	68
HARD SPRING	252	398	651	151	156	307	344
DURUM	92	80	173	44	62	106	67
WHITE	95	214	309	61	174	235	74
ALL CLASSES	1,112	2,026	3,14-	842	1,124	1,966	1,174
1978/79 5/							
HARD WINTER	621	873	1,494	356	585	941	553
RED WINTER	68	205	273	128	105	233	40
HARD SPRING	344	374	719	154	180	334	385
DURUM	67	119	187	47	50	97	90
WHITE	74	231	305	60	180	240	65
ALL CLASSES	1,174	1,802	2,978	745	1,100	1,845	1,133

1/ DATA, EXCEPT PRODUCTION, ARE APPROXIMATIONS. 2/ TOTAL SUPPLY INCLUDES IMPORTS. 3/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS IN WHEAT EQUIVALENT. 4/ PRELIMINARY. 5/ PROJECTED.

Table 4.--Wheat: Current indicators of export movement, by program, coastal area and class of wheat, June-May 1976/77 and 1977/78

Period, program, and coastal area	Wheat (grain only)-Inspections for export 1/						
	Hard Winter	Red Winter	Hard Spring	Durum	White	Mixed	Total
	- - - - Million bushels - - - -						
June-May 1976/77							
Dollars	312.2	116.0	111.6	39.6	138.9	0.3	718.6
CCC Credit	32.4	4.8	0.7	---	11.0	---	48.9
Commercial	344.6	120.8	112.3	39.6	149.9	0.3	767.5
P.L. 480	36.9	50.9	4.9	---	27.6	2/	120.3
Total	381.5	171.7	117.2	39.6	177.5	0.3	887.8
June-May 1977/78							
Dollars	435.9	101.8	130.2	56.9	111.7	6.3	842.8
CCC Credit	33.3	32.9	15.1	1.5	32.6	---	115.4
Commercial	469.2	134.7	145.3	58.4	144.3	6.3	958.2
P.L. 480	22.4	49.1	2.8	2/	21.2	---	95.5
Total	491.6	183.8	148.1	58.4	165.5	6.3	1,053.7
June-May 1976/77							
Coastal areas:							
Great Lakes	0.1	6.3	31.4	15.6	1.3	---	54.7
Atlantic	---	50.4	---	2/	3.5	---	53.9
Gulf	293.8	115.0	36.8	10.1	---	0.3	456.0
Pacific	87.6	---	49.0	13.9	172.7	---	323.2
Total	381.5	171.7	117.2	39.6	177.5	0.3	887.8
June-May 1977/78							
Coastal areas:							
Great Lakes	0.2	22.7	44.6	48.7	2.1	---	118.3
Atlantic	---	51.1	0.6	0.3	5.1	---	57.1
Gulf	413.6	110.0	40.7	4.4	---	4.8	573.5
Pacific	77.8	---	62.2	5.0	158.3	1.5	304.8
Total	491.6	183.8	148.1	58.4	165.5	6.3	1,053.7

1/ Based on weekly reports of inspections for export. Does not include rail or truck movement to Canada or Mexico.

2/ Less than 50,000 bushels.

Agricultural Marketing Service, Grain Division.

Table 5.--Wheat: Inspections for export, by class and country of destination, June-May 1977/78

Country	Hard Red Spring	Hard Red Winter	Soft Red Winter	White	Durum	Mixed	Total
			1,000 bushels				
Algeria	---	2,867	4,569	---	18,452	---	25,888
Angola	---	---	1,765	---	---	---	1,765
Bangladesh	642	9,740	12,464	463	---	---	23,309
Belgium	435	693	433	---	196	---	1,757
Belize	44	132	186	---	---	8	370
Bolivia	---	3,255	---	---	---	---	3,255
Brazil	---	81,817	---	---	---	---	81,817
Chile	---	15,033	3,178	---	552	1,157	19,920
China, Rep. of (Taiwan)	6,153	11,130	808	4,488	---	---	22,579
Colombia	---	16,083	1,448	---	---	---	17,531
Costa Rica	1,221	139	287	73	191	---	1,911
Dahomey	329	---	270	---	---	---	599
Dominican Republic	2,966	2,225	1,049	---	---	23	6,263
Ecuador	---	9,200	405	---	---	---	9,605
Egypt	---	4,903	49,102	926	---	---	54,931
El Salvador	3,732	92	1,161	110	167	---	5,262
Fed. Rep. of Germany (W)	5,209	1,214	345	---	1,416	---	8,184
France	494	---	698	---	1,728	---	2,920
German Dem. Rep. (E)	---	1,331	---	---	1,266	---	2,597
Ghana	873	52	---	---	---	---	925
Guatemala	1,280	531	104	---	250	---	2,165
Guyana	122	1,413	---	---	---	---	1,535
Haiti	911	---	---	---	44	---	955
Honduras	658	985	407	---	133	---	2,183
Hong Kong	1,631	171	---	2,155	---	---	3,957
India	---	478	5,650	250	---	---	6,378
Indonesia	8,472	3,576	300	1,665	---	---	14,013
Iran	---	1,242	---	39,747	---	---	40,989
Iraq	577	13,060	569	21	---	---	14,227
Israel	---	14,299	741	---	---	---	15,040
Italy	5,949	197	2,755	383	10,293	---	19,577
Jamaica	1,504	177	101	---	---	---	1,782
Japan	25,839	45,595	661	43,988	2,009	---	118,092
Jordan	---	4,174	---	---	---	---	4,174
Kenya	---	2,096	---	---	162	---	2,258
Korea, Rep. of	3,250	20,735	---	42,086	---	---	66,071
Lebanon	---	1,853	2,533	---	---	---	4,386
Liberia	668	313	---	---	---	197	1,178
Libya	---	1,415	---	---	---	---	1,415
Malaysia	707	190	263	---	---	---	1,160
Malta	368	404	---	---	---	---	772
Mexico	101	11,859	8,533	---	---	---	20,493
Morocco	---	8,879	22,302	---	1,272	---	32,453
Mozambique	---	---	734	---	---	---	734
Netherlands	24,496	5,752	4,126	---	4,153	---	38,527
Nicaragua	1,660	426	148	---	---	46	2,280
Nigeria	4,133	20,694	1,055	---	---	4,411	30,293
Norway	---	1,640	---	---	---	---	1,640
Pakistan	---	---	1,643	19,695	---	---	21,338
Panama	1,714	---	267	79	311	---	2,371
Peru	---	13,371	---	---	---	---	13,371
Philippines	19,887	---	---	7,567	---	---	27,454
Poland	---	---	26,779	---	1,176	---	27,955
Portugal	---	8,322	12,775	---	1,487	---	22,584
Romania	121	81	7,287	---	225	---	7,714
Saudi Arabia	---	1,931	---	---	---	---	1,931
Senegal	---	---	---	977	---	---	977
Sierra Leone	274	466	---	---	---	---	740
Singapore	1,141	247	308	228	---	---	1,924
Spain	---	---	76	---	2,390	---	2,466
Sudan	---	4,753	---	---	---	---	4,753
Thailand	1,579	301	---	320	---	---	2,200
Togo	369	76	---	---	---	---	445
Trinidad	474	626	224	---	---	---	1,324
Tunisia	---	455	2,265	---	6,565	---	9,285
United Kingdom	---	6,138	243	289	276	---	6,946
U.S.S.R.	---	124,446	965	---	---	---	125,411
Venezuela	17,492	2,751	1,409	---	3,685	419	25,756
Vietnam	---	366	---	---	---	---	366
Zaire	---	3,982	---	---	---	---	3,982
Zambia	---	505	---	---	---	---	505
Other	626	789	364	---	---	---	1,779
Grand total	148,101	491,666	183,755	165,510	58,399	6,261	1,053,692

Agricultural Marketing Service, Grain Division.

Table 6.--Wheat: Cash prices for leading classes at major markets, 1977-78 1/

Major market and Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Dollars per bushel - - - -												
No. 1 HRW, Kansas City													
Ordinary protein													
1977/78	2.31	2.35	2.31	2.47	2.56	2.81	2.80	2.82	2.84	3.07	3.21	3.12	2.72
1978/79	3.12												
13% protein													
1977/78	2.51	2.43	2.38	2.53	2.61	2.86	2.87	2.92	2.89	3.09	3.36	3.25	2.81
1978/79	3.20												
No. 2 SRW, Chicago													
1977/78	2.29	2.20	2.08	2.20	2.27	2.59	2.65	2.69	2.64	2.82	3.11	3.14	2.56
1978/79	3.18												
No. 2 SRW, St. Louis													
1977/78	2.15	2.14	1.97	2.01	2.28	2.70	2.74	2.75	2.71	2.90	3.09	2.99	2.54
1978/79	3.05												
No. 2 SRW, Toledo													
1977/78	2.21	2.13	2.03	2.08	2.21	2.53	2.57	2.62	2.55	2.77	3.07	3.03	2.48
1978/79	3.09												
No. 2 SW, Toledo													
1977/78	2.21	2.16	2.04	2.06	2.18	2.52	2.56	2.62	2.56	2.77	3.07	3.03	2.48
1978/79	3.10												
No. 1 SW, Portland													
1977/78	2.79	2.88	2.88	2.80	2.75	2.91	2.97	3.17	3.33	3.41	3.62	3.60	3.09
1978/79	3.60												
No. 1 DK. NS, Minneapolis													
Ordinary protein													
1977/78	2.43	2.29	2.22	2.51	2.61	2.71	2.68	2.73	2.72	2.86	3.08	3.10	2.66
1978/79	3.06												
14% protein													
1977/78	2.65	2.54	2.48	2.75	2.87	2.96	2.92	2.94	2.90	3.03	3.23	3.27	2.88
1978/79	3.21												
Hard amber durun, Mpls. (med.)													
1977/78	2.84	2.84	2.80	3.12	3.42	3.54	3.51	3.62	3.61	3.60	3.72	3.79	3.37
1978/79	3.72												

1/ On-track prices established at the close of the market.

Table 7.--Wheat: Farm price, loan rate per bushel and price for equivalent quantity of major feed grain in region, 1977-78 1/

Item	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average	Support rate
	- - - - Price for 60 pounds (bushel weight of wheat) - - - -													
Central and So. Plains (Hd. winter) 2/														
Wheat 1977/78	1.94	1.98	1.94	2.06	2.19	2.37	2.38	2.37	2.44	2.55	2.69	2.69	2.30	2.19
Sorghum 1977/78	1.82	1.75	1.59	1.60	1.74	1.87	1.86	1.87	1.91	2.02	2.16	2.21	1.87	1.79
Wheat 1978/79	3/2.65													2.28
Sorghum 1978/79	3/2.15													2.00
Cornbelt (Soft red winter) 4/														
Wheat 1977/78	1.99	1.97	1.88	1.88	2.01	2.35	2.45	2.45	2.48	2.64	2.88	2.89	2.32	2.26
Corn 1977/78	2.30	2.01	1.74	1.70	1.80	2.07	2.16	2.17	2.21	2.33	2.47	2.50	2.12	1.93
Wheat 1978/79	3/2.78													2.34
Corn 1978/79	3/2.48													2.18
East and South (Soft red winter) 5/														
Wheat 1977/78	1.95	1.91	1.68	2.00	---	---	2.23	---	---	---	---	---	1.95	2.22
Corn 1977/78	2.58	2.20	1.85	1.84	1.95	2.29	2.41	2.34	2.44	2.58	2.69	2.87	2.33	2.03
Wheat 1978/79	3/ ---													2.28
Corn 1978/79	3/2.94													2.29
Northern Plains (Spring and durum) 6/														
Wheat 1977/78	2.25	2.16	2.16	2.28	2.45	2.59	2.56	2.60	2.62	2.66	2.81	2.84	2.50	2.26
Barley 1977/78	2.10	1.71	1.70	1.71	1.91	2.11	2.14	2.15	2.19	2.21	2.34	2.39	2.05	1.74
Wheat 1978/79	3/2.76													2.36
Barley 1978/79	3/2.19													1.92
Pacific Northwest (White) 7/														
Wheat 1977/78	2.47	2.52	2.55	2.45	2.40	2.58	2.62	2.69	2.92	3.07	3.17	3.22	2.72	2.31
Barley 1977/78	2.47	2.44	2.25	2.32	2.10	2.31	2.30	2.36	2.47	2.56	2.64	2.71	2.41	1.99
Wheat 1978/79	3/3.21													2.41
Barley 1978/79	3/2.76													2.15
U.S. Average														
Wheat 1977/78	2.03	2.04	2.13	2.16	2.30	2.46	2.47	2.53	2.59	2.67	2.82	2.82	8/2.31	2.25
Wheat 1978/79	3/2.80													2.35

1/ Simple averages with no adjustment made for relative feed value. Relative feeding value: Corn 1.00; wheat 1.05; barley .90; sorghum .95; reported in Consumption of Feed by Livestock, Production Research Report No. 79, ERS, USDA. 2/ Kansas, Nebraska, Texas, Oklahoma, and Colorado. 3/ Preliminary. 4/ Ohio, Indiana, Illinois, and Missouri. 5/ Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, Mississippi, Alabama, Louisiana, and Arkansas. 6/ North Dakota, South Dakota, and Minnesota. 7/ Washington, Oregon, and Idaho. 8/ Season average price including allowance for unredeemed loans and purchases by CCC.

Table 8.--Wheat: Monthly average export prices at selected ports, 1975-78

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Cents per bushel - - - -												
	GULF PORTS: NO. 1 HARD RED WINTER, ORDINARY PROTEIN												
1975/76	346	395	443	450	439	400	388	391	416	415	396	386	405
1976/77	398	387	345	327	303	290	288	296	301	291	278	259	314
1977/78	253	263	260	272	283	304	312	311	315	337	355	337	300
1978/79	344												
	EAST COAST NO. 1 SOFT RED WINTER												
1975/76	319	358	405	412	392	354	328	365	391	389	1/	1/	371
1976/77	1/	350	319	312	284	274	278	285	291	278	271	258	291
1977/78	---	229	222	231	246	282	289	294	294	315	340	339	280
1978/79	337												
	PORTLAND: NO. 2 WESTERN WHITE												
1975/76	343	382	442	448	430	389	383	387	408	396	375	361	395
1976/77	362	364	342	331	306	299	284	294	305	298	302	299	316
1977/78	286	292	295	285	282	296	305	320	338	347	369	365	315
1978/79	369												
	DULUTH: NO. 2 NORTHERN SPRING, 14% PROTEIN												
1975/76	426	456	489	493	477	434	435	422	444	438	422	425	447
1976/77	442	423	374	344	326	312	303	305	310	303	302	286	336
1977/78	267	255	254	279	290	297	290	292	289	299	321	327	288
1978/79	324												

1/ No price quotes available.

Source: Grain Market News.

Table 9.--White Pan Bread: Estimated price and marketing spreads per one pound loaf and prices of ingredients, by months, 1978

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
					- - - - Cents per loaf - - - -							
Retail price (BLS)	35.0	36.1	36.2	35.9	36.8							
Marketing spreads 1/												
Retailing	2.0	2.8	2.8	2.1	2.5							
Baking-wholesaling	25.0	25.3	25.3	25.1	25.7							
Flour milling	1.1	1.2	1.0	1.0	0.9							
Other spreads												
Wheat, farm to flour mill	0.5	0.3	0.4	0.5	0.6							
Other farm ingredients 2/	0.3	0.3	0.3	0.4	0.3							
Flour, flour mill to baker	0.4	0.4	0.5	0.4	0.5							
Non-farm ingredients 3/	0.8	0.8	0.8	0.8	0.8							
Farm-retail price spread	30.1	31.1	31.1	30.3	31.3							
Farm value of ingredients												
Wheat	3.0	3.0	3.1	3.5	3.4							
Other farm ingredients	1.9	2.0	2.0	2.1	2.1							
Total farm value	4.9	5.0	5.0	5.6	5.5							
Prices of farm ingredients												
Flour												
F.o.b. bakery	4.9	4.9	5.0	5.5	5.4							
F.o.b. flour mill	4.5	4.5	4.6	5.1	4.9							
Wheat 4/												
F.o.b. flour mill	3.5	3.3	3.5	4.1	4.0							
Farm value	3.0	3.0	3.1	3.5	3.4							
Other farm ingredients												
F.o.b. bakery	2.2	2.3	2.4	2.4	2.4							
Farm value	1.9	2.0	2.0	2.1	2.1							
					- - - - Dollars per cwt. - - - -							
Prices of flour and millfeeds												
Flour, f.o.b. bakery	7.80	7.80	7.93	8.68	8.46							
Flour, f.o.b. flour mill	7.13	7.03	7.20	8.00	7.74							
Millfeeds, f.o.b. flour mill	3.43	4.07	4.24	2.95	3.42							
					- - - - Dollars per bushel - - - -							
Prices of wheat												
Wheat, f.o.b. flour mill	2.81	2.74	2.96	3.18	3.21							
Farm value	2.44	2.49	2.59	2.76	2.76							

1/ Differences between estimated prices received and paid for bread or ingredients. 2/ Includes processing, transportation, and merchandising for lard, vegetable shortenings, sugar, malt and non-fat dry milk. Difference between estimated cost to baker and estimated farm value. 3/ Estimated cost to baker of yeast, yeast food, salt, and other non-farm ingredients. 4/ Price adjusted for value of millfeeds.

NOTE: Price spreads may not add due to independent rounding.

Table 10.--Wheat and flour: Price relationships at milling centers annual and by periods, 1974-78

Year and periods	At Kansas City					At Minneapolis				
	Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-				Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-			
		Bakery flour per 100 lb. 2/	Byprod-ucts obtained 100 lb. flour 3/	Total products			Bakery flour per 100 lb. 2/	Byprod-ucts obtained 100 lb. flour 3/	Total products	
				Actual	Over cost of wheat				Actual	Over cost of wheat
	- - - - Dollars - - - -									
1974/75										
June-Sept.	10.74	10.22	1.66	11.88	1.14	11.42	11.48	1.64	13.12	1.70
Oct.-Dec.	12.14	11.45	1.89	13.34	1.20	12.46	12.57	1.85	14.42	1.96
Jan.-Mar.	9.90	9.83	1.51	11.34	1.44	10.19	10.97	1.45	12.42	2.23
Apr.-May	8.94	8.77	1.39	10.16	1.22	10.11	10.11	1.40	11.51	1.40
Season average	10.43	10.07	1.61	11.68	1.25	11.04	11.28	1.58	12.86	1.82
1975/76										
June-Sept.	9.64	9.15	1.48	10.63	.99	10.37	10.38	1.45	11.83	1.46
Oct.-Dec.	9.55	9.58	1.67	11.25	1.70	10.12	10.66	1.56	12.22	2.10
Jan.-Mar.	9.49	9.29	1.56	10.85	1.36	9.97	10.36	1.47	11.83	1.86
Apr.-May	9.03	8.88	1.53	10.41	1.38	9.68	10.16	1.54	11.70	2.02
Season average	9.43	9.23	1.56	10.79	1.36	10.04	10.39	1.51	11.90	1.86
1976/77										
June-Sept.	8.47	8.31	1.70	10.01	1.54	8.98	9.64	1.74	11.38	2.40
Oct.-Dec.	6.92	7.05	1.71	8.76	1.84	7.16	8.04	1.72	9.76	2.60
Jan.-Mar.	6.75	6.70	1.63	8.33	1.58	7.02	7.78	1.66	9.44	2.42
Apr.-May	6.12	6.02	1.62	7.64	1.52	6.66	7.02	1.66	8.68	2.02
Season average	7.06	7.02	1.66	8.68	1.62	7.46	8.12	1.70	9.82	2.36
1977/78										
June-Sept.	5.61	5.86	1.19	7.05	1.44	5.97	6.70	1.23	7.93	1.96
Oct.-Dec.	6.34	6.46	1.33	7.79	1.45	6.69	7.24	1.23	8.47	1.78
Jan.-Mar.	6.77	6.88	1.37	8.25	1.48	6.82	7.52	1.25	8.77	1.95
Apr.-May 4/	7.54	7.86	1.14	9.00	1.46	7.45	8.52	1.08	9.60	2.15
Season average	6.56	6.76	1.26	8.02	1.46	6.73	7.49	1.20	8.69	1.96

1/ Based on 73 percent extraction rate, cost of 2.28 bushels: At Kansas City, No. 1 Hard Winter, 13 percent protein, and at Minneapolis, No. 1 Dark Northern Spring, simple average of 13 percent and 15 percent protein. 2/ Quoted as 95 percent patent at Kansas City and standard patent at Minneapolis, bulk basis. 3/ Assumed 50-50 millfeed distribution between bran and shorts or middlings, bulk basis. 4/ Preliminary.

Compiled from reports of Agricultural Marketing Service and Bureau of Labor Statistics, Department of Labor.

Table 11.--Cereal and bakery products: Retail price index, 1966-78

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
	(Index 1967 = 100)												
1966	96.8	96.9	99.0	99.9	99.8	100.1	100.3	100.3	100.0	100.1	100.0	100.3	99.5
1967	99.8	99.7	99.9	99.9	99.7	99.9	99.9	99.8	99.7	99.7	99.8	99.9	99.8
1968	100.1	100.6	100.9	101.1	101.1	101.4	101.4	101.7	101.9	102.3	102.4	102.6	101.5
1969	103.0	103.5	103.5	103.8	104.4	104.7	105.4	105.9	106.6	107.2	107.7	108.0	105.3
1970	108.2	108.7	109.8	110.2	111.0	111.2	111.6	112.4	112.8	113.0	113.9	114.1	111.4
1971	114.2	114.8	114.5	114.6	114.3	114.1	113.8	113.7	114.3	114.8	115.0	114.7	114.4
1972	114.5	114.4	114.4	114.6	114.6	115.0	115.8	116.3	117.8	119.0	120.2	122.1	116.6
1973	123.0	123.5	124.7	132.4	139.0	145.8	148.5	149.7	154.4	158.6	161.4	164.3	143.8
1974	165.3	166.7	168.2	170.4	174.7	177.6	181.7	185.3	187.3	189.1	188.9	187.0	178.5
1975	185.2	184.6	182.6	181.6	181.6	181.9	182.2	182.0	181.1	180.6	180.2	180.8	182.0
1976	181.3	180.9	180.3	180.4	180.1	179.9	179.3	179.9	180.0	181.3	182.6	182.5	180.7
1977	182.8	183.3	182.7	184.9	185.4	187.1	189.0	190.8	194.5	194.4	194.8	198.2	189.0
1978	199.4												

Bureau of Labor Statistics, U.S. Department of Labor.

Table 12.--Wheat: Price support activity, cumulative, by months, 1974-78 crops 1/

Item	Unit	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Total Crop
1974 - Loan $1.37													
Placed under loan	Mil. bu.	4	14	22	29	31	32	34	35	36	36	36	36
Redeemed by farmers	"	2/	2/	2	4	8	11	13	17	19	22	26	36
Placed in reserve	"	--	--	--	--	--	--	--	--	--	--	--	--
Net under loan	"	4	14	20	25	23	21	21	18	17	14	10	0
Farm price	Dol.	3.57	4.04	4.24	4.32	4.85	4.87	4.65	4.11	3.95	3.65	3.69	3/4.09
1975 - Loan $1.37													
Placed under loan	Mil. bu.	2/	12	16	18	24	26	39	46	47	47	48	48
Redeemed by farmers	"	--	2/	3	4	5	6	8	11	15	20	24	48
Placed in reserve	"	--	--	--	--	--	--	--	--	--	--	--	--
Net under loan	"	2/	12	13	14	19	20	31	35	32	27	24	0
Farm price	Dol.	2.92	3.33	3.89	4.11	4.02	3.58	3.41	3.43	3.66	3.65	3.50	3/3.56
1976 - Loan $2.25													
Placed under loan	Mil. bu.	1	8	22	44	82	148	226	279	301	341	363	497
Redeemed by farmers	"	--	2/	2/	1	2	3	5	9	16	26	38	227
Placed in reserve	"	--	--	--	--	--	--	--	--	--	--	--	212
Net under loan	"	1	8	22	43	80	145	221	270	285	315	325	4/58
Farm price	Dol.	3.46	3.33	2.97	2.88	2.59	2.46	2.39	2.43	2.47	2.43	2.37	3/2.73
1977 - Loan $2.25													
Placed under loan	Mil. bu.	45	187	327	407	439	463	479	509	524	556	573	582
Redeemed by farmers	"	--	2/	1	6	13	37	50	69	91	133	186	277
Placed in reserve	"	--	--	--	--	--	--	--	--	1	34	81	131
Net under loan	"	45	187	326	401	426	426	429	440	432	389	306	174
Farm price	Dol.	2.03	2.04	2.13	2.16	2.30	2.46	2.47	2.53	2.59	2.67	2.82	3/2.31
1978 - Loan $2.35													
Placed under loan	Mil. bu.	5											
Redeemed by farmers	"	--											
Placed in reserve	"	--											
Net under loan	"	5											
Farm price	Dol.	5/2.80											

1/ Based on ASCS monthly operating reports.
2/ Less than 500,000 bushels.
3/ Season average price.
4/ Includes 48 million bushels acquired by CCC.
5/ Preliminary.

Table 13.--All wheat; winter and spring: Acreage, yield and production, United States, 1969-78

Year of harvest	All wheat				Winter wheat			
	Acreage		Yield per harvested acre	Production	Acreage		Yield per harvested acre	Production
	Planted	Harvested			Planted	Harvested		
	1,000 acres		Bushels	1,000 bushels	1,000 acres		Bushels	1,000 bushels
1969	53,450	47,146	30.6	1,442,679	42,338	36,303	31.2	1,131,439
1970	48,739	43,564	31.0	1,351,558	37,623	32,702	33.4	1,091,744
1971	53,822	47,685	33.9	1,618,636	38,072	32,370	35.4	1,145,011
1972	54,913	47,303	32.7	1,546,209	42,183	34,859	34.0	1,186,498
1973	59,254	54,148	31.6	1,710,787	43,501	38,747	33.0	1,278,220
1974	71,044	65,368	27.3	1,781,918	52,023	46,778	29.4	1,375,526
1975	74,786	69,391	30.6	2,122,459	55,881	51,307	32.0	1,640,396
1976	80,202	70,771	30.3	2,142,362	57,668	49,460	31.5	1,559,923
1977 1/	74,804	66,216	30.6	2,025,793	55,980	48,419	31.5	1,526,713
1978 2/	66,315	56,532	31.9	1,801,705	48,001	38,846	32.9	1,276,705

Year of harvest	All spring wheat				Durum				Spring other than durum			
	Acreage		Yield per harvested acre	Production	Acreage		Yield per harvested acre	Production	Acreage		Yield per harvested acre	Production
	Planted	Harvested			Planted	Harvested			Planted	Harvested		
	1,000 acres		Bushels	1,000 bushels	1,000 acres		Bushels	1,000 bushels	1,000 acres		Bushels	1,000 bushels
1969	11,112	10,843	28.7	311,240	3,466	3,420	31.7	108,403	7,646	7,423	27.3	202,837
1970	11,116	10,862	23.9	259,814	2,167	2,105	25.1	52,771	8,949	8,757	23.6	207,043
1971	15,750	15,315	30.9	473,625	2,943	2,864	32.1	91,805	12,807	12,451	30.7	381,820
1972	12,730	12,444	28.9	359,711	2,592	2,550	28.6	72,912	10,138	9,894	29.0	286,799
1973	15,753	15,401	28.1	432,567	2,952	2,884	27.2	78,455	12,801	12,517	28.3	354,112
1974	19,021	18,590	21.9	406,392	4,174	4,099	19.8	81,245	14,847	14,491	22.4	325,147
1975	18,905	18,084	26.7	482,063	4,830	4,680	26.4	123,362	14,075	13,404	26.8	358,701
1976	22,534	21,311	27.3	582,439	4,748	4,584	29.4	134,914	17,786	16,727	26.8	447,525
1977 1/	18,824	17,797	28.0	499,080	3,183	3,025	26.4	79,964	15,641	14,772	28.4	419,116
1978 2/	18,314	17,686	29.7	525,000	4,110	3,976	30.0	119,445	14,204	13,710	29.6	405,555

1/ Preliminary. 2/ Acreage indicated as of July 1.

Table 14.--Wheat: Stocks, United States, by periods, 1969-78

Year	January 1				April 1			
	On farms	Off farm mills, elevators and warehouses 1/	Commodity Credit Corporation 2/	Total all positions	On farms	Off farm mills, elevators and warehouses 1/	Commodity Credit Corporation 2/	Total all positions
	- - - 1,000 bushels - - -				- - - 1,000 bushels - - -			
1969	576,932	763,660	758	1,341,350	460,476	648,221	759	1,109,456
1970	609,443	922,434	941	1,532,818	456,499	739,803	944	1,197,246
1971	526,092	881,946	1,932	1,409,970	381,098	677,407	1,930	1,060,435
1972	694,549	851,077	2,023	1,547,649	525,743	682,983	1,978	1,210,704
1973	510,202	886,974	1,827	1,399,003	316,063	609,431	1,822	927,316
1974	364,382	562,139	1,813	928,334	181,704	365,000	1,441	548,145
1975	446,289	661,171	---	1,107,460	274,106	387,982	---	662,088
1976	547,623	838,028	---	1,385,651	342,624	594,151	---	936,775
1977	665,407	1,116,376	---	1,781,783	510,976	878,534	---	1,389,510
1978 3/	829,360	1,160,678	---	1,990,038	638,843	886,088	---	1,524,931

Year	July 1				October 1			
1969	325,906	489,964	790	816,660	752,200	1,119,311	913	1,872,424
1970	307,093	576,561	1,219	884,873	663,673	1,122,919	1,878	1,788,470
1971	240,276	489,388	1,814	731,478	826,860	1,045,046	1,886	1,873,792
1972	355,050	506,297	1,906	863,253	730,210	1,138,841	1,858	1,870,909
1973	133,923	302,759	1,819	438,501	608,466	841,267	1,817	1,451,550
1974	89,455	157,907	294	247,656	680,469	881,629	36	1,562,134
1975	132,734	194,255	---	326,989	755,500	1,129,044	---	1,884,544
	June 1*							
1974	N.A.	N.A.	---	340,060				
1975	N.A.	N.A.	---	434,975				
1976	235,485	429,768	---	665,253	833,264	1,354,946	---	2,188,210
1977	426,336	685,912	---	1,112,248	1,032,236	1,365,322	---	2,397,558
1978 3/	492,249	682,069	---	1,174,318				

1/ All off-farm storages not otherwise designated, including flour mills, terminal elevators and processing plants.
2/ Wheat owned by CCC and stored in bins or other storage owned or controlled by CCC. Other wheat owned by CCC as well as wheat outstanding under loan is included in other positions.
3/ Preliminary.

*Stocks of grains on July 1 are no longer being reported. Henceforth, stocks will be reported January 1, April 1, June 1, and October 1. N.A.=Not available.

Table 15.--Wheat and Wheat Flour: World trade, production, stocks and consumption for 1975/76, 1976/77, 1977/78, and projected levels for 1978/79, years beginning July 1.

Country or region	1975/76	1976/77	1977/78 Preliminary	1978/79 Forecast
	- - - - Million metric tons - - - -			
Exports:				
Canada	12.1	12.9	15.8	14.5
Australia	7.9	8.5	11.2	8.0
Argentina	3.2	5.6	2.7	2.9
Sub-total	23.2	27.0	29.7	25.4
W. Europe	9.5	6.6	6.2	7.3
USSR	0.5	1.0	1.0	1.0
All Others	1.6	2.8	4.0	5.0
Total Non-U.S.	34.9	37.4	40.9	38.8
USA 1/	31.5	25.7	31.0	29.7
World total	66.4	63.1	71.9	68.4
Imports:				
W. Europe	6.4	5.4	7.6	6.0
USSR	10.1	4.6	7.1	5.0
Japan	5.9	5.5	5.6	5.7
E. Europe	5.6	7.0	4.2	4.7
China, People's Rep. of	2.2	3.1	8.6	8.0
All Others	36.2	37.5	38.9	39.0
World total	66.4	63.1	71.9	68.4
(World total including intra EC-9)	(72.9)	(68.5)	(78.6)	(74.9)
Production: 2/				
Canada	17.1	23.6	19.7	18.8
Australia	12.0	11.7	9.4	12.5
Argentina	8.6	11.0	5.3	8.0
W. Europe	48.5	50.7	47.6	52.7
USSR 3/	66.2	96.9	92.0	105.0
E. Europe	28.5	34.7	34.4	33.8
India	24.1	28.8	29.1	31.2
All other foreign	87.3	99.4	89.0	95.1
Total foreign	292.3	356.8	326.4	357.1
USA	57.8	58.3	55.1	49.0
World total	350.0	415.1	381.6	406.1
Consumption: 4/				
USA	19.7	20.3	22.9	20.3
USSR 3/	87.8	88.5	100.1	102.0
China, People's Rep. of	43.2	48.1	49.1	52.0
All other foreign	202.5	219.1	218.5	226.9
World total	353.2	375.9	390.6	401.2
Stocks, ending: 5/	59.4	98.5	89.3	94.3

1/ Includes transshipments through Canadian ports; excludes products other than flour. 2/ Production data include all harvests occurring within the July-June year shown, except that small grain crops from the early harvesting Northern Hemisphere areas are "moved forward"; i.e., the May 1977 harvests in areas such as India, North Africa, and southern United States are actually included in "1977/78" accounting period which begins July 1, 1977. 3/ "Bunker weight" basis: not discounted for excess moisture and foreign material. 4/ Consumption data are based on an aggregate of differing local marketing years. For countries for which stocks data are not available, (excluding the USSR) consumption estimates represent "apparent" consumption, i.e., they are inclusive of annual stock level adjustments. 5/ Stocks data are based on an aggregate of differing local marketing years and should not be construed as representing world stock levels at a fixed point in time. Stocks data are not available for all countries and exclude those such as the People's Republic of China and parts of Eastern Europe; the world stock levels have been adjusted for estimated year-to-year changes in USSR grain stocks, but do not purport to include the entire absolute level of USSR stocks.

SOURCE: Foreign Agricultural Service. World Grain Situation: Outlook for 1978/79.

Table 16.--Wheat: World wheat supply and distribution, marketing years 1970-78 1/

Year	Area harvested	Yield	Beginning stocks 2/	Production	Total exports	Consumption total 3/
	Million ha.	Metric ton/ha.		Million metric tons		
1970/71	206.9	1.52	95.4	315.4	56.4	338.7
1971/72	212.8	1.64	72.0	348.7	55.6	341.8
1972/73	210.8	1.63	79.1	343.4	70.8	361.4
1973/74	216.6	1.72	61.1	372.2	72.6	364.0
1974/75	220.4	1.62	69.3	357.1	68.0	363.1
1975/76	225.0	1.56	62.8	350.0	73.7	353.2
1976/77	232.5	1.79	59.4	415.1	70.0	375.9
1977/78 4/	225.1	1.70	98.5	381.6	74.3	390.6
1978/79 5/	226.6	1.79	89.3	406.1	73.0	401.2

1/ Data in this table are based on aggregate of differing local marketing years, and will therefore differ from July-June data appearing elsewhere in this report.
2/ Stocks data are only for selected countries and exclude such important countries as USSR, the People's Republic of China, and part of Eastern Europe for which stocks data are not available; the aggregate stocks levels have, however, been adjusted for estimated year-to-year changes in USSR grain stocks.
3/ For countries for which stock data are not available, or for which no adjustments have been made for year-to-year changes, consumption estimates assume a constant stock level.
4/ Preliminary.
5/ Projected.

Source: Foreign Agricultural Service. World Grain Situation: Outlook for 1978/79, FG-12-78, July 19, 1978

Table 17.--Wheat: World wheat and flour trade (grain equivalent), year beginning July, 1974-78 1/*

Region and Country	1974	1975	1976	1977 Preliminary	1978 Forecast
	Million metric tons				
Exports					
Canada	11.2	12.1	12.9	15.8	14.5
Australia	8.3	7.9	8.5	11.2	8.0
Argentina	2.2	3.2	5.6	2.7	2.9
Sub-total	21.6	23.2	27.0	29.7	25.4
West Europe	8.2	9.5	6.6	6.2	7.3
East Europe	1.7	1.3	1.8	1.9	1.2
USSR	4.0	0.5	1.0	1.0	1.0
Other	0.3	0.3	0.9	2.2	3.9
Total Non-U.S.	35.8	34.9	37.4	40.9	38.8
United States	28.0	31.5	25.7	31.0	29.7
World total	63.9	66.4	63.1	71.9	68.4
Imports					
Japan	5.4	5.9	5.5	5.6	5.7
West Europe	6.0	6.4	5.4	7.6	6.0
East Europe	4.5	5.6	7.0	4.2	4.7
USSR	2.5	10.1	4.6	7.1	5.0
China, People's Rep. of	5.7	2.2	3.1	8.6	8.0
Sub-total	24.1	30.1	25.6	33.0	29.4
Africa 2/	7.7	8.1	8.2	10.2	9.5
Latin America 3/	5.0	6.3	5.3	7.4	8.0
West Asia 4/	4.7	2.4	3.9	5.1	4.2
South Asia 5/	10.8	10.8	6.1	4.6	5.4
Other Asia 6/	2.7	2.5	3.4	3.1	3.1
Others	8.8	6.1	10.7	8.5	8.7
World total	63.9	66.4	63.1	71.9	68.4

1/ Data exclude intra-EC-9 trade, and exclude products other than flour in grain equivalent; U.S. data also adjusted for transshipments through Canada.
2/ Algeria, Egypt, Libya, Morocco, Nigeria, Sudan and Tunisia.
3/ Mexico, Brazil, Chile, Colombia, Peru and Venezuela.
4/ Iran, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, Syria and Turkey.
5/ Bangladesh, India, Indonesia, Pakistan and Sri Lanka.
6/ Rep. of Korea, Philipoines and Taiwan.
* Totals may not add due to independent rounding.

Source: Foreign Agricultural Service. World Grain Situation: Outlook for 1978/79, FG-12-78, July 19, 1978.

Table 18.--Wheat: Rotterdam, c.i.f., quotations for cargoes/parcels in nearest shipment position, by months, 1973-78 1/

Year beginning	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Dollars per metric ton - - - -												
	Canadian No. 1 CWRS - 13.5												
1973	132	167	202	228	222	205	222	239	244	240	214	185	208
1974	204	216	216	213	234	237	232	209	198	182	192	193	210
1975	195	205	210	228	219	222	2/185	2/187	2/195	2/174	2/166	2/169	196
1976	2/188	2/175	158	156	145	141	139	145	146	135	133	134	150
1977	127	122	117	129	137	144	145	153	155	2/148	2/154	2/159	141
1978	2/157												
	United States No. 2 Hard Winter, 13.5%												
1973	121	144	203	212	206	200	223	230	232	224	183	170	196
1974	177	191	194	204	230	229	219	195	180	176	159	146	192
1975	146	174	188	195	185	173	166	168	181	183	176	169	175
1976	172	176	159	150	139	131	132	133	140	132	130	121	143
1977	114	116	116	120	126	135	137	134	132	139	151	142	130
1978	2/150												
	United States Dark Northern Spring, 14%												
1973	132	146	193	201	194	198	224	240	240	228	182	180	196
1974	209	214	217	214	233	233	228	204	192	179	182	181	207
1975	175	185	196	202	193	182	187	183	193	194	174	178	187
1976	181	176	158	148	138	137	142	145	148	134	130	127	147
1977	115	111	110	121	126	131	132	144	147	147	147	145	131
1978	2/142												

1/ Hamburg Mercantile Exchange prices for Rotterdam. Averages: Basis daily market quotes. 30 days delivery.

2/ Canadian Western Spring Wheat (CWRS)--No. 2--12.5 protein.

NQ - Not quoted.

Compiled from Foreign Agriculture Grain Circular, Foreign Agriculture Service.

TABLE 19.--RYE: MARKETING YEAR SUPPLY, DISAPPEARANCE, ACREAGE AND PRICES, 1973-78

YEAR BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS MAY 31	
					DOMESTIC USE								
	BEGINNING STOCKS	PRODUCTION	IMPORTS	TOTAL	FOOD	SEED	INDUSTRY	FEED 1/	TOTAL	EXPORTS	TOTAL DISAPPEARANCE	PRIVATELY OWNED 2/	GOVT. 3/	TOTAL
	1,000 BUSHELS												
1973/74	38,816	24,677	1	63,494	6,250	4,980	2,547	8,029	21,806	27,513	49,319	14,175	---	14,175
1974/75	14,175	17,506	277	31,958	5,459	5,040	1,386	6,986	18,871	6,465	25,336	6,622	---	6,622
1975/76	6,622	15,958	944	23,524	4,172	4,790	2,060	6,981	18,003	1,117	19,120	4,404	---	4,404
1976/77	4,404	14,951	248	19,603	3,696	4,723	1,930	4,798	15,147	38	15,185	4,418	---	4,418
1977/78 4/	4,418	16,998	127	21,543	3,655	4,700	1,892	7,307	17,554	24	17,578	3,965	---	3,965
1978/79 5/	3,965	28,518	100	32,583										

	ACREAGE		YIELD PER HARVESTED ACRE	SEASONAL PRICES		NATIONAL AVG. LOAN RATE
	PLANTED	HARVESTED		RECEIVED BY FARMERS	MINNEAPOLIS, NO. 2	
	- - - 1,000 ACRES - - -		BUSHELS	- - - - - - DOLLARS PER BUSHEL - - - - - -		
1973/74	3,380	955	25.8	1.91	2.51	.89
1974/75	2,828	784	22.3	2.51	2.89	.89
1975/76	2,829	729	21.9	2.36	2.84	.89
1976/77	2,652	721	20.7	2.47	2.87	1.20
1977/78 4/	2,652	694	24.5	5/ 2.05	2.53	1.70
1978/79 5/	2,965	1,070	26.7			1.70

1/ RESIDUAL; ROUGHLY APPROXIMATES TOTAL FEED USE. 2/ INCLUDES TOTAL LOANS. 3/ UNCOMMITTED, GOVERNMENT ONLY. 4/ PRELIMINARY. 5/ PROJECTED. N.A. = NOT AVAILABLE.

TABLE 20.--RYE: MARKETING YEAR SUPPLY AND DISAPPEARANCE, SPECIFIED PERIODS, 1973-78*

YEAR AND PERIODS BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS		
					DOMESTIC USE									
	BEGINNING STOCKS	PRODUCTION	IMPORTS	TOTAL	FOOD	ALC. BEVERAGES	SEED	FEED 1/	TOTAL	EXPORTS	TOTAL DISAPPEARANCE	GOVT. OWNED 2/	PRIVATELY OWNED 3/	TOTAL
	MILLION BUSHELS													
1973/74														
JUNE-SEPT.	38.8	24.7	---	63.5	2.0	0.8	2.3	7.1	12.3	15.3	27.6	0.1	35.8	35.9
OCT.-DEC.	35.9	---	---	35.9	1.6	0.6	2.3	0.5	5.0	9.9	14.9	4/	21.0	21.0
JAN.-MAR.	21.0	---	4/	21.0	1.7	0.7	0.2	0.6	3.2	0.1	3.3	---	17.7	17.7
APR.-MAY	17.7	---	---	17.7	1.0	0.4	0.1	-0.2	1.3	2.2	3.5	---	14.2	14.2
MKT. YEAR	38.8	24.7	4/	63.5	6.3	2.5	5.0	8.0	21.8	27.5	49.3	---	14.2	14.2
1974/75														
JUNE-SEPT.	14.2	17.5	4/	31.7	1.9	0.4	2.4	3.0	7.6	4.2	11.9	---	19.8	19.8
OCT.-DEC.	19.8	---	4/	19.8	1.4	0.4	2.3	1.9	6.0	2.2	8.2	---	11.6	11.6
JAN.-MAR.	11.6	---	---	11.6	1.3	0.3	0.3	1.7	3.6	4/	3.7	---	7.9	7.9
APR.-MAY	7.9	---	0.3	8.2	0.8	0.3	0.1	0.3	1.5	4/	1.6	---	6.6	6.6
MKT. YEAR	14.2	17.5	0.3	32.0	5.5	1.4	5.0	7.0	18.9	6.5	25.3	---	6.6	6.6
1975/76														
JUNE-SEPT.	6.6	15.9	0.2	22.8	1.4	0.4	2.3	3.3	7.5	0.7	8.1	---	14.7	14.7
OCT.-DEC.	14.7	---	0.2	14.9	1.1	0.7	2.2	1.5	5.5	0.3	5.8	---	9.1	9.1
JAN.-MAR.	9.1	---	4/	9.1	1.1	0.5	0.2	1.5	3.3	4/	3.3	---	5.8	5.8
APR.-MAY	5.8	---	0.5	6.2	0.6	0.5	0.1	0.6	1.7	0.1	1.8	---	4.4	4.4
MKT. YEAR	6.6	15.9	0.9	23.5	4.2	2.1	4.8	7.0	18.0	1.1	19.1	---	4.4	4.4
1976/77														
JUNE-SEPT.	4.4	15.0	0.2	19.6	1.2	0.5	2.3	1.5	5.5	4/	5.5	---	14.1	14.1
OCT.-DEC.	14.1	---	4/	14.1	1.0	0.5	2.2	1.6	5.2	4/	5.2	---	8.9	8.9
JAN.-MAR.	8.9	---	4/	8.9	0.9	0.6	0.2	0.9	2.7	4/	2.7	---	6.2	6.2
APR.-MAY	6.2	---	---	6.2	0.6	0.4	0.1	0.8	1.8	4/	1.8	---	4.4	4.4
MKT. YEAR	4.4	15.0	0.2	19.6	3.7	1.9	4.7	4.8	15.1	4/	15.2	---	4.4	4.4
1977/78 5/														
JUNE-SEPT.	4.4	17.0	0.1	21.5	1.2	0.6	2.2	3.1	7.1	4/	7.1	---	14.5	14.5
OCT.-DEC.	14.5	---	---	14.5	1.0	0.5	2.2	1.8	5.5	4/	5.5	---	9.0	9.0
JAN.-MAR.	9.0	---	---	9.0	0.9	0.5	0.2	1.5	3.1	4/	3.1	---	5.9	5.9
APR.-MAY	5.9	---	4/	5.9	0.6	0.3	0.1	0.9	1.9	4/	1.9	---	4.0	4.0
MKT. YEAR	4.4	17.0	0.1	21.5	3.7	1.9	4.7	7.3	17.6	4/	17.6	---	4.0	4.0

1/ RESIDUAL: ROUGHLY APPROXIMATES TOTAL FEED USE. 2/ UNCOMMITTED, GOVERNMENT ONLY. 3/ INCLUDES TOTAL LOANS 4/ LESS THAN 500,000 BUSHELS. 5/ PRELIMINARY. *TOTALS MAY NOT ADD DUE TO ROUNDING.

Table 21.--Rye: Flour and cash prices, 1975-78

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	MINNEAPOLIS, WHITE FLOUR (Dollars per cwt.)												
1975	6.78	7.01	8.21	8.30	8.35	7.98	7.70	7.86	7.85	8.02	8.01	8.18	7.85
1976	8.94	9.04	8.64	8.60	8.25	8.20	8.24	8.62	8.76	8.82	8.85	8.70	8.64
1977	8.14	6.99	6.52	6.96	7.65	7.92	8.34	8.54	8.80	9.10	9.29	9.52	8.15
1978	9.03												
	MINNEAPOLIS NO. 2 (Dollars per bushel)												
1975	2.49	2.58	3.04	3.03	3.01	2.86	2.73	2.82	2.81	2.89	2.88	2.96	2.84
1976	3.24	3.22	2.88	2.90	2.77	2.68	2.70	2.77	2.80	2.82	2.82	2.79	2.87
1977	2.53	1.94	1.79	2.06	2.28	2.46	2.56	2.69	2.82	2.94	3.05	3.22	2.53
1978	2.93												

Table 22.--Rye: Acreage, yield, and production, United States, annual 1969-78

Year of harvest	Acreage seeded 1/	Acreage harvested	Yield per harvested acre	Production
	1,000 acres	1,000 acres	Bushels	1,000 bushels
1969	3,959	1,291	23.4	30,204
1970	4,196	1,427	25.8	36,840
1971	4,842	1,751	28.1	49,223
1972	3,458	1,050	26.9	28,256
1973	3,380	955	25.8	24,677
1974	2,828	784	22.3	17,506
1975	2,829	729	21.9	15,958
1976	2,652	721	20.7	14,951
1977	2,652	694	24.5	16,998
1978 2/	2,965	1,070	26.7	28,518

1/ Seeded for all purposes in preceding fall.

2/ Preliminary.

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WS-245 AUGUST 1978

Weights, Measures and Conversion Factors

Bushel weights:
- Wheat & soybeans = 60 lbs.
- Corn, sorghum & rye = 56 lbs.
- Barley (grain) = 48 lbs.: malt = 34 lbs.
- Oats = 32 lbs.

Bushels to metric tons:
- Wheat & soybeans = bushels x .027216
- Barley = bushels x .021772
- Corn, sorghum, rye = bushels x .025400
- Oats = bushels x .014515

1 Metric ton equals:
- 2204.622 lbs.
- 22.046 hundredweight
- 10 quintals
- 1,000 kilograms
- 36.7437 bushels wheat or soybeans
- 39.3679 bushels corn, sorghum, or rye
- 45.9296 bushels barley
- 68.8944 bushels oats

Area:
- 1 Acre = .404694 hectares
- 1 Hectare = 2.4710 acres

Yields:
- Wheat = bushels per acre x 0.6725 = quintals per hectare
- Rye, corn = bushels per acre x 0.6277 = quintals per hectare
- Barley = bushels per acre x 0.5380 = quintals per hectare
- Oats = bushels per acre x 0.3587 = quintals per hectare